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## THE MATERNITY NURSING SERVICE OF A BICOUNTY HEALTH DEPARTMENT<sup>1</sup>

### Brunswick-Greensville Health Administration Studies No. 5

Prepared by PEARL McIVER, *Associate Public Health Nursing Analyst, United States Public Health Service*

In a previous article<sup>2</sup> a general description was given of the public health nursing work in the Brunswick-Greensville health department. These two counties are located in southern Virginia, bordering on North Carolina. The population in 1930 was approximately 34,000, 60 percent of which was colored. The personnel of the health department consisted of one full-time medical health officer who directed the work, a sanitation officer who served both counties, two public health nurses (one assigned to each county), and a part-time office clerk.<sup>3</sup> A generalized public health nursing program, including maternal and infant hygiene, tuberculosis control, preschool and school hygiene, and communicable disease control, was carried on in each county. At the request of the State health department, the nurses were urged to devote about one-third of their time to maternal hygiene.

Seventy-five percent of all births occurring within the two counties were attended by colored midwives. About 90 percent of the colored and 40 percent of the white mothers were dependent upon the midwives for delivery care. Each midwife had been given a permit to practice by the State health department. Certain regulations as to their morals and personal health were prescribed, but no special training was required outside of assisting a physician with 1 or 2 deliveries. None of the midwives pursued any formal course of training in midwifery and many were unable to read or write.

There were no hospitals within the area; and while a few of the well-to-do women went to the hospitals in Richmond and elsewhere for delivery, a large majority of the maternity cases were cared for in their own homes and were dependent upon the midwives for delivery care.

<sup>1</sup> From the Office of Studies of Public Health Methods, in cooperation with the Division of Domestic Quarantine.

<sup>2</sup> McIver, Pearl: Public health nursing in a bicounty health department, *Pub. Health Repts.*, vol. 50, p. 469. (Apr. 5, 1935.)

<sup>3</sup> For complete description of this area, see Mountin, Joseph W.: Effectiveness and economy of county health department practice, *Pub. Health Repts.*, vol. 49, pp. 1234-5. (Oct. 10, 1934.)

Eighteen general practicing physicians resided within the area. A demonstration prenatal clinic was conducted by a clinician from the University of Virginia in cooperation with the State medical association for a short period during the study year. This clinic was organized as an educational project for the local practicing physicians and not as a service for the community. A few of the colored mothers, who were used as clinic material, did have the benefit of a prenatal examination, but the majority of the ante-partum cases did not have medical supervision.

According to the family survey,<sup>4</sup> which included a representative sample of the Brunswick-Greenville population, about 45 percent of the maternity cases consulted a physician for some purpose one or more times during pregnancy. However, two-thirds of those persons saw the physician but once and frequently the visit was made for an illness no way related to pregnancy.

The maternal mortality rate among the white mothers was 2.3 per thousand live births, as compared with 7.8 among the colored. The neonatal death rate (death rate of infants under 1 month of age per 1,000 live births) was 34 for the year in which the study was made.

#### CLASSES FOR MOTHERS

During the first few months of the study year the State health department conducted a correspondence course for mothers on maternity hygiene and child care. This course was later discontinued, but about 10 percent of the cases seen during those early months were enrolled for this work.

#### MIDWIFE SUPERVISION

Local responsibility for the supervision of the midwives was vested in the county health department, but most of the supervisory activities were delegated by the health officer to the public health nurses. In the case of a maternal death attended by a midwife or an applicant for a license, the matter was brought to the attention of the health officer. However, this happened rarely, as was shown by the records of the health officer. Over a period of 10 months,<sup>5</sup> he had but three such contacts with midwives.

According to the nursing records, there were 42 midwives in Brunswick County and 25 in Greenville County during the study year. Each midwife was notified by the State health department that she might expect the nurse to supervise her work and that she must report all of her prenatal cases to the local health department.

<sup>4</sup> Unpublished data collected in a study of 1,000 families in the health district.

<sup>5</sup> Unpublished data on the work of the health officer.

The nurse's part in the supervision of midwives consisted mainly of class and individual instruction in their homes or at the health department offices. The State health department provided each nurse with a manual of instructions for the conduct of midwife classes. Eight lessons on ante-partum, delivery, and post-partum care were outlined and, in addition, a handbook of instructions was provided for the midwives who were able to read. The midwife classes were open to others who might be interested, and frequently there were more visitors than midwives in attendance. During the study year the Brunswick County nurse had 12 class sessions, with an average attendance of 12 midwives and 15 others; the Greenville County nurse had two sessions during the year, with an average attendance of 20 midwives and 5 others.

A total of 167 home visits was made to midwives in the interest of the maternity program. In addition, the midwives made 68 visits to the health department offices to confer with the nurses. The latter visits were usually for the purpose of reporting prenatal cases or to secure prenatal literature or infant's clothing for some of their patients. The midwives were required to have a regulation bag and certain minimum equipment as prescribed by the Bureau of Child Hygiene of the State health department. The bags were inspected by the local nurses at intervals. Sometimes the nurses accompanied the midwives to the homes of their patients, but this type of supervision was not given very frequently.

#### EXTENT OF MATERNITY NURSING SERVICE

Of the 1,114 individuals who were visited by the public health nurses for all purposes during the study year, 234, or 21 percent, of them were maternity cases. Of these maternity cases, 51, or approximately 22 percent, were visited during both the ante-partum and post-partum periods;<sup>6</sup> 138, or 59 percent, were visited during the ante-partum period only; and 45, or 19 percent, were not seen until after delivery. Thus there were 189 ante-partum and 96 post-partum cases registered with the public health nurses in the two counties during the study year.

During the study year, 1,036 live- and stillbirths were reported to the State Bureau of Vital Statistics from these two counties. If the recorded live- and stillbirths occurring within the area be considered as representing approximately the maternity population, it will be seen that about 22 percent of the maternity cases received one or more visits from the public health nurses during the study year.

In Rutherford County, Tenn., Mustard<sup>7</sup> reported that the nurses gave advice and service to 29 percent of all of the maternity cases

<sup>6</sup> Post-partum period comprised the first 6 weeks following delivery.

<sup>7</sup> Mustard, H. S.: *Rural health progress*, p. 100. Commonwealth Fund, New York City, 1930.

occurring within the county annually over a 5-year period. In Cattaraugus County, New York, Randall<sup>8</sup> estimated that 29 percent of the maternity cases there received some service from the public health nurses during the year in which her study was made. The number of maternity cases reached by the Brunswick-Greenville nurses compares very favorably, since there were but two nurses to a population of about 34,000, while in Rutherford and Cattaraugus counties, there was about one nurse to every 6,000 of the population. However, the number of visits per case was considerably less in the Brunswick-Greenville area. The Brunswick-Greenville nurses made a total of 419 visits to the 234 maternity cases, or an average of 1.8 visits per case. The Cattaraugus and Rutherford county nurses averaged about four visits per case.

By comparing the extent of the maternity work in Brunswick-Greenville counties with the extent of the maternity work in other county health departments having a similar set-up, it is possible to estimate the relative amount of emphasis which was placed on maternity work in these two counties. Eight counties of a somewhat similar make-up were selected from the group of counties which were surveyed by the American Public Health Association<sup>9</sup> for comparison. It is recognized that there may be some difference in definition of service among the several counties; nevertheless, from the data presented in table 1, it would appear that the Brunswick County nurse reached more than three times as many ante-partum cases as the average for the eight counties selected for comparison and almost twice as many post-partum cases. The Greenville County nurse visited almost twice as many ante-partum cases and about the same number of post-partum cases as the average for the eight counties selected. Several of the counties selected for comparison had a higher average number of visits per case, but only two counties had a higher total number of ante-partum visits than did Brunswick and Greenville Counties. These figures would indicate that the maternity service of the Brunswick-Greenville Health Department received more emphasis than did the maternity service in the average county health department. The State health department recommended that nurses devote one-third of their time to maternity and infancy work. It is quite probable that the Brunswick-Greenville nurses attempted to meet these recommendations, and thus the program was perhaps influenced in favor of maternity work.

<sup>8</sup> Randall, M.: Maternity service by rural public health nurses. *Milbank Quarterly*, July 1931, p. 105.

<sup>9</sup> Freeman, Allen: *A study of rural health practice*. The Commonwealth Fund, New York City, 1933.

TABLE 1.—Visits to maternity cases in eight of the counties included in the American Public Health Association survey<sup>1</sup> as compared with Brunswick and Greenville Counties

County and State	Total births	Ante-par- tum cases	Ante-par- tum nurs- ing visits	Average number of visits ante- par- tum cases	Post-par- tum cases	Post-par- tum nurs- ing visits	Average number of visits post- par- tum cases
Limestone County, Ala...	967	39	80	2.1	68	53	0.8
Talbot County, Md.....	353	48	51	1.1	72	72	1.0
Geary County, Kans.....	274	26	38	1.5	0	0	
Scott County, Ky.....	332	57	456	8.0	50	75	1.5
Greenwood County, S. C.	861	28	70	2.5	0	0	
Williamson County, Tenn.	482	57	147	2.6	59	133	2.3
Rockbridge County, Va...	512	15	18	1.2	21	22	1.0
Southampton County, Va.	757	33	33	1.0	17	17	1.0
Total.....	4,598	303	893	2.9	287	372	
Average.....	575	37.9	111.6		35.9	46.5	1.3
Brunswick County, Va...	626	122	158	1.3	59	67	1.1
Greenville County, Va...	410	67	127	1.9	37	67	1.9

<sup>1</sup> Freeman, Allen: A study of rural health practice. The Commonwealth Fund, New York City, 1933.

#### METHOD OF CASE FINDING

As previously stated, 75 percent of all births which occurred within Brunswick and Greenville Counties were attended by midwives. The midwives had been instructed by the State health department to report all of their ante-partum cases to the county health department. About 40 percent of the maternity cases seen by the nurses were reported by the midwives; and while this may not seem an especially large percentage when compared with the percentage of cases delivered by midwives, quite frequently the midwife was not engaged until labor had begun. In that event it was not possible to report the case as a prenatal case to the health department.

Twenty-eight percent of the cases coming to the attention of the nurses were reported by the patients themselves or some relative of the patient. Sometimes the patients attended a class or clinic, but more frequently they came to the health department office seeking help or wrote to the nurses asking them to call. Neighbors reported 15 percent of the cases to the health department, and about 8 percent were discovered by the nurses while visiting other members of the family. About 4 percent of the maternity cases were reported by physicians. The remaining cases were reported by the poormaster, school teachers, practical nurses, and others. In Cattaraugus County, N. Y., where physicians attend most of the births, they also reported a larger percentage of maternity cases known to the nurses. Midwives, neighbors, and visits to other members of the family were about equally important as sources of information in that county. Table 2 gives the distribution of the maternity cases visited by the nurses in Brunswick and Greenville Counties and those visited by

the nurses in Cattaraugus County, according to the source of first information.

TABLE 2.—*Distribution of maternity cases visited by the nurses in Brunswick-Greenville Counties and in Cattaraugus County according to source of first information*

Source of information	Brunswick-Greenville		Cattaraugus <sup>1</sup>	
	Number	Percent	Number	Percent
Physician	8	3.6	44	40.4
Midwife	89	40.1	19	17.4
Visit of other member of family	17	7.7	18	16.5
Neighbor	34	15.3	17	15.6
Patient or relative	63	28.3	9	8.3
Other	11	5.0	2	1.8
Total	<sup>2</sup> 222	100.0	<sup>3</sup> 109	100.0

<sup>1</sup> Randall, Marian G.; Quarterly Bulletin, Milbank Memorial Fund, New York City, vol. 4, July 1931, no. 3, p. 107.

<sup>2</sup> Source of information on 12 cases unknown.

<sup>3</sup> Source of information on 22 cases unknown.

#### ECONOMIC STATUS OF MATERNITY CASES

About 70 percent of the maternity cases visited by the nurses were in the poor or very poor economic groups, as compared with 61 percent of the maternity cases found among the families included in the family study.<sup>10</sup> About 50 percent of the families in the family study were in poor or very poor economic circumstances. Thus, it would appear as though there were more pregnancies in the families of the lower income groups and that the nurses tended to select maternity cases from the lower income groups for visiting.

TABLE 3.—*Distribution of all families included in the family study, of all maternity cases included in the family study, and of the maternity cases visited by the Brunswick-Greenville nurses according to economic status*

Economic status	All families in the family study		All maternity cases in the family study		Maternity cases visited by nurses	
	Number	Percent	Number	Percent	Number	Percent
Comfortable	88	8.7	8	4.8	14	6.3
Moderate	420	41.6	56	34.1	54	24.1
Poor	374	37.1	72	43.6	97	43.3
Very poor	127	12.6	29	17.5	59	26.3
Total	1,009	100.0	165	100.0	<sup>2</sup> 224	100.0

<sup>1</sup> Economic status of 10 maternity cases unknown.

<sup>10</sup> See footnote 4.

## ANTE-PARTUM VISITS

## STAGE OF PREGNANCY WHEN FIRST SEEN BY THE NURSES

It is generally agreed that ante-partum supervision should begin early in pregnancy if it is to be of greatest value; yet getting in touch with patients during the early months of pregnancy is often one of the most difficult problems of the public health nurse. From table 4 it will be seen that 22, or about 12 percent, of the 189 ante-partum cases visited by the public health nurses in the Brunswick-Greenville area were seen before the end of the third month. About 62 percent of the cases were not seen until the last 3 months of pregnancy.

TABLE 4.—*Distribution of ante-partum cases visited by the nurses according to the month of pregnancy when the case was first visited*

	First, second, and third months		Fourth, fifth, and sixth months		Seventh, eighth, and ninth months		Total	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Total.....	22	11.6	50	26.5	117	61.9	189	100.0

Table 5 shows that the source of first information about the majority of those cases visited during the first 3 months was the patient herself, or some relative of the patient. Midwives reported about 40 percent of the ante-partum cases to the nurses, but 54, or about 73 percent, of those cases were not referred to the nurses until the last 3 months of pregnancy. It is quite probable that the patients did not engage the midwives until late in pregnancy.

TABLE 5.—*Source of first information about ante-partum cases visited for the first time during certain months of pregnancy according to the source of first information about the case*

Source of information	First, second, and third months		Fourth, fifth, and sixth months		Seventh, eighth, and ninth months		Total	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Patient or patient's relative.....	14	63.6	14	28.0	30	25.6	58	30.7
Midwife.....	5	22.7	15	30.0	54	46.2	74	39.2
Physician.....	0	—	2	4.0	2	1.7	4	2.1
Neighbors.....	1	4.5	9	18.0	15	12.8	25	13.2
Visits to others in family.....	2	9.1	4	8.0	8	6.8	14	7.4
Other.....	0	—	6	12.0	8	6.8	14	7.4
Total.....	22	100.0	50	100.0	117	100.0	189	100.0

The 189 ante partum cases visited by the nurses received a total of 285 home and 39 office visits during the study year. This gives an average of 1.7 visits per case. However, 65 percent of the cases

received but one visit. Only 2 cases received more than 5 visits; one of those was visited 8 times and one 12 times. The Greenville County nurse had a visit frequency average of about 2.0 per case, as compared to 1.5 per case for the Brunswick County nurse. However, the percentages of cases receiving but one visit were practically the same in both counties. Six, or approximately 9 percent, of the Greenville cases received 30 percent of the total ante partum visits which were made during the year.

The month of pregnancy in which the first contact was made may influence the number of visits which will be made to a given case. There may be little opportunity to make more than one visit to those patients who are not seen until the ninth month of pregnancy. Others may not have been "present" during the study year for more than one or two months. For instance, those patients who were in their third or fourth month of pregnancy when the study closed would not normally receive more than one or two visits, even though the first contact was made early in pregnancy. Table 6 shows the number of visits to ante-partum cases distributed according to the number of months they were known to the nurse.

TABLE 6.—*Distribution of ante-partum cases and visits according to the number of months during the study year in which the cases were known to the public health nurses*

Total months of study year during which patient was known to the nurses	Number of patients	Visits to patients			Average number of times patient was seen by the nurse
		Home	Office	Total	
1 or less.....	58	62	15	77	1.3
2.....	59	77	16	93	1.5
3.....	26	48	2	50	1.9
4.....	20	36	3	39	1.9
5.....	10	34	2	36	3.6
6.....	6	7	0	7	1.1
7.....	5	10	0	10	2.0
8.....	3	8	1	9	3.0
More than 8.....	2	3	0	3	1.5
Total.....	189	285	39	324	1.7

From table 6 it is evident that the average number of visits to those patients who were known to the nurses for 6 or more months was not significantly greater than the average number of visits to those who were known to the nurses for 2 months or less.

The history of previous pregnancies is commonly accepted as a criterion for selecting cases for prenatal nursing service. It is usually assumed that those who are pregnant for the first time, or who have had previous stillbirths or miscarriages, need more nursing service than do those who have had previous uncomplicated pregnancies. However, the average number of visits per case to the 44 women who were pregnant for the first time was 1.1, while the average number of

visits to the 95 women who had had previous uncomplicated pregnancies was 1.6. The average number of visits to the 50 women who gave histories of previous stillbirths or miscarriages was 1.8, but the difference in the frequency of visits to these various types of cases may not be important. These data appear to indicate that no special effort was made to visit those ante-partum cases with histories of previous complications more frequently than those cases with histories of previous uncomplicated pregnancies.

Twenty-two of the ante-partum cases received three or more visits. A special analysis was made of the 22 families represented by these cases to see whether there were any apparent reasons why these few cases received more than the usual one or two visits. Fourteen of the 22 cases receiving three or more visits lived in Greenville County, and all but three of them lived in the village of Emporia. Eleven were colored. The majority were classed as "poor" in economic status, but only three were listed as receiving material aid. Eight of the 14 cases were under medical supervision. A special check was made to see whether there were other members of the family under supervision who might require a number of nursing visits. It was thought that the additional prenatal visits might perchance be incidental to visits to acute communicable disease or tuberculosis, cases of which usually have a fairly high visit frequency rate; but no tuberculosis or other communicable disease cases were found in any of these families. In one family a preschool health supervision case was visited five times in regard to a tonsillectomy, but there were very few other individuals from these homes who received nursing visits of any type, and only a few of those who were visited received more than one visit. Three of the 14 cases receiving three or more visits were under treatment for syphilis, one was a heart case, and one had pellagra. One case, with no apparent complications, was visited four times during the fifth month and was then not revisited until after delivery. Thus, there was no apparent reason why these Greenville County cases should have received more visits than the other ante-partum cases unless convenient location was a factor.

Of the 8 cases receiving three or more visits in Brunswick County, 1 was an active tuberculosis case, 1 had an attack of appendicitis during the ante-partum stage, 1 was scheduled to have a Caesarian section, and another was an obesity case requiring special treatment. Five visits were made to one home in the interest of typhoid-fever control. The ante-partum visits appeared to be incidental to the typhoid-control visits. There were no apparent reasons for the repeated visits in the other three cases. In Brunswick County as in Greenville, the majority of the cases receiving three or more visits were under medical supervision. However, location probably was not a factor in Brunswick County as none of the cases lived in the

county seat, and those receiving three or more visits were not concentrated in any particular part of the county.

SERVICES RENDERED TO ANTE-PARTUM CASES

Five main types of ante-partum information or service were recorded. This classification included—

- Advice in regard to medical examination and care;
- Instruction on preparation for delivery;
- Instruction on preparation of baby's layette;
- Instruction on diet and personal hygiene; and
- Distribution of literature.

One of the objectives of the public health nurses was to secure a medical examination for every ante-partum case. The importance of having an examination by a physician early in pregnancy, even though a midwife had been engaged for the delivery, was explained to 85 of the 189 ante-partum patients who were visited by the nurses.

Eighty, or about 44 percent, of the ante-partum patients visited by the nurses consulted a physician one or more times during pregnancy. As previously stated, a limited number of colored cases were examined at the demonstration clinic held in Brunswick County. The private physicians of Greensville County made free prenatal examinations occasionally, when requested to do so by the nurse, but the number was not large. Table 7 gives the distribution of ante-partum cases visited by the nurses according to medical care and economic status.

TABLE 7.—*Distribution of ante-partum cases visited by the nurses according to economic status<sup>1</sup> and medical supervision*

Economic status	Had some medical supervision		Had no medical supervision		Total	
	Number	Percent	Number	Percent	Number	Percent
Comfortable.....	7	70.0	3	30.0	10	100.0
Moderate.....	24	48.0	26	52.0	50	100.0
Poor.....	34	42.5	46	57.5	80	100.0
Very poor.....	15	34.9	28	65.1	43	100.0
Total.....	80	43.7	103	56.3	183	100.0

<sup>1</sup> Economic status unknown for 6 cases.

Since 70 percent of the maternity cases were among the poor or very poor economic groups, it was thought that inability to pay for medical services might have influenced the number who had no medical care. It may be noted in table 7 that 30 percent of those who were in comfortable circumstances and 52 percent of those who were in moderate circumstances did not consult a physician during pregnancy. This appears to indicate that not all of the mothers

appreciated the importance of having a medical examination during pregnancy.

Since about 97 percent of the maternity cases in the Brunswick-Greenville area were delivered at home, the preparation for home delivery was regarded by the nurses as an important objective of the ante-partum visit. Practically all of the cases visited received instruction in the preparation for delivery. This instruction was in accordance with the information contained in the printed instructions issued by State and Federal health agencies. Copies of the printed instructions were left with those patients who could read. The nurses did little demonstration of the actual preparation themselves, but the midwives were encouraged to visit and actually show their prospective patients how to make newspaper bed pads and how to prepare and sterilize dressings.

Instructions on diet and general hygiene were given to about 95 percent of the cases who were visited by the nurses. A few cases were seen so late in pregnancy that diet instructions would have had little effect, and on a few records the nurses indicated that the mothers did not appear to benefit by instruction. Quite frequently the nurses were obliged to arrange for material relief for the maternity cases. Food and clothing were the articles most frequently provided, and the arrangements were usually made through the county supervisor of the poor.

The preparation of the baby's layette was discussed with practically all of the ante-partum cases. Many of those who were not seen until the last month of pregnancy had prepared their layettes before the nurse visited them, but the nurse usually inspected their work and suggested additions when indicated. A number of the mothers were financially unable to get the minimum amount of supplies. The colored mothers' clubs, as a rule, made it their business to prepare baby layettes from used flour or sugar sacks, and these layettes were given to the nurse to be distributed at her discretion.

The Greenville County nurse made blood-pressure readings on 92 percent of her ante-partum cases. Arrangements were made for a medical examination when the readings were found to be abnormally high. Urinalyses were not done by either of the nurses, but specimens were collected from 69 percent of the cases and sent to the State laboratory for examination.

#### POST-PARTUM VISITS

Only 96 of the 234 maternity cases carried by the Brunswick-Greenville nurses were seen by the nurses during the 6 weeks' period following delivery. Since there were 1,036 live and stillbirths in that area during the study year, about 9 percent of the maternity cases received visits during the post-partum period.

Forty-five of the 96 post-partum cases were not known to the nurses during the ante-partum period and received their first visit from the nurses after delivery. Midwives reported 15, or about 33 percent, of those post-partum cases who were not seen during the ante-partum period. According to the midwives' statements, these patients did not engage them prior to delivery but, instead, called them after labor had begun. Neighbors reported about 20 percent of the post-partum cases and physicians reported about 9 percent of the cases to the health department, while relatives of the patients reported about 11 percent of the cases. Most of the remaining cases were found by the nurses while visiting the homes for other purposes.

One hundred and thirty-four visits were made to the 96 maternity cases visited during the post-partum period by the Brunswick-Greenville nurses, giving an average of 1.4 visits per case. However, 79 percent of the post-partum cases received but one visit. A few cases received from four to six visits each. According to the appraisal form,<sup>11</sup> full credit is given for post-partum nursing visits if there are 500 visits per 1,000 births. The Brunswick-Greenville rate is only slightly better than 100 visits per 1,000 births.

Thirty-seven, or approximately 39 percent, of the post-partum cases carried by the nurses were visited during the first week following delivery. Thirty, or about 31 percent, of them received their first post-partum visits during the second week after delivery. Thus approximately 70 percent of the post-partum cases receiving nursing service were visited during the lying-in period, the most productive period for a post-partum visit. Eleven cases were visited during the third week and the remaining 18 cases were visited before the end of the sixth week following delivery.

#### SERVICES RENDERED TO POST-PARTUM CASES

Advice on post-partum nursing care was given to the attendant on 89 percent of the cases. The attendant was usually some member of the household, as it was not customary for the midwives to remain in the home and give nursing care to the mother. Those post-partum cases seen before delivery were often given some instruction prior to delivery. As was previously stated, 29 of the post-partum cases were seen for the first time more than two weeks after delivery. Practically no demonstrations of nursing care were given.

While advice on general hygiene and nutrition was given almost universally to ante-partum cases, only 25 percent of the post-partum cases received this instruction. According to the nursing records, nutrition was never discussed on a post-partum visit if the case had been visited during the ante-partum period and the subject had been

<sup>11</sup> American Public Health Association Appraisal Form for Rural Health Work, p. 61. American Public Health Association, New York City, 1932.

discussed at that time. While proper food habits of the mother during the post-partum period may not be as important as during the ante-partum period, the diet of the mother during puerperium is one of the factors in the maintenance of breast feeding and is worthy of consideration. Approximately 23 percent of the post-partum cases were given literature on infant care.

From the nursing records it would appear that the importance of a post-partum examination was not emphasized as a routine practice by the nurses when making post-partum visits. The records showed that the need for a post-partum examination was explained to but 50 percent of the cases visited. Since but one visit was made to a majority of the post-partum cases, and that usually early, a complete record could not be obtained as to how many might have had post-partum examinations. Of the 165 maternity cases included in the family survey,<sup>12</sup> only 9, or about 5 percent, reported post-partum examinations. From these data it would appear that post-partum examinations were not often made in the Brunswick-Greenville area.

#### WHAT HAPPENED TO THE MATERNITY CASES WHO WERE VISITED BY THE BRUNSWICK-GREENVILLE NURSES?

Of the 234 maternity cases visited by the Brunswick-Greenville nurses, 96 were seen by the nurses following delivery, and on this number only were the nurses able to supply delivery history. In order to get this information on the 138 patients seen only during the ante-partum period, an analysis was made of the birth records in the State bureau of vital statistics. Delivery information was obtained for 119 of the 138 cases. A few of those who were not found in the records of the bureau of vital statistics were not due to be delivered until after the check had been made. Mistakes in names or the possibility that some of the pregnancies resulted in miscarriages which were not reported to the bureau of vital statistics may have accounted for the others who were not found. Delivery history was therefore obtained from 215 of the 234 maternity cases visited by the nurses.

Table 8 gives a comparison of the outcome of the pregnancies occurring among those families included in the family survey<sup>13</sup> and those who were visited by the nurses. Of the 215 cases in which delivery information was obtained in connection with the nursing study, 192, or approximately 89 percent, resulted in full-term live babies. Of the 167 pregnancies occurring among the families included in the family survey, 142, or approximately 85 percent, resulted in full-term live babies. In 16, or about 7 percent, of the cases visited by the nurses, stillbirths occurred, while 15, or about 9 percent, of the pregnancies reported in the family survey resulted in stillbirths.

<sup>12</sup> See footnote 4.

<sup>13</sup> See footnote 4.

Only 4, or about 2 percent, of the cases visited by the nurses miscarried before the end of the twenty-eighth week of pregnancy, while 7, or about 4 percent, of those included in the family survey resulted in miscarriages. These figures are too small to warrant any conclusions concerning the effect of the nursing service. Furthermore, the family survey is likely to reveal quite nearly the true number of interrupted pregnancies; while in a nursing service, where many pregnancies come to the nurses' attention late, miscarriages and stillbirths would tend to be missed.

TABLE 8.—*Comparison of the results of pregnancy among 215 maternity cases visited by the public health nurses and those maternity cases included in the family study*

Result	Maternity cases visited by nurses		Maternity cases in family study	
	Number	Percent	Number	Percent
Live births.....	195	90.7	145	88.8
Stillbirths.....	16	7.4	15	9.0
Miscarriages.....	4	1.9	7	4.2
Total.....	215	100.0	167	100.0

Of the 215 patients visited by the nurses and for whom delivery information was obtained, 20 miscarried or gave birth to still-born babies. Ten of the 20 gave histories of previous stillbirths or miscarriages, 6 were first pregnancies, and 4 had had previous live births but gave no history of previous stillbirths or miscarriages. A check on the histories of the past pregnancies of all (234) maternity patients visited by the nurses revealed that 62, or approximately 27 percent, did give histories of previous stillbirths or miscarriages. In the family survey,<sup>14</sup> only 15 percent of the maternity cases gave histories of previous stillbirths or miscarriages. Thus it would appear that there may have been some selection of maternity cases in Brunswick-Greenville Counties on the basis of the history of previous complications, even though there was no increase in the number of visits per case on this basis.

Five, or 31 percent, of the 16 stillbirths occurring among those cases visited by the nurses were attended by physicians; 4, or 25 percent, by physicians and midwives; and 7, or 44 percent, by midwives alone. It is probable that the physicians were not called until quite late in labor for those cases which were attended by both physicians and midwives. Thus midwives delivered without medical assistance 44 percent of the stillbirths occurring among those cases visited by the nurses, and they assisted with the delivery of an additional 25 percent. The midwives delivered without medical assistance 68 per-

<sup>14</sup> See footnote 4.

cent of the cases visited by the nurses, so that proportionately their stillbirth rate was not higher than that of the physicians.

According to the records of the State bureau of vital statistics, the percentages of stillbirths in the whole State of Virginia (4.2) and for the Brunswick-Greenville district (4.6) are less than the percentage of stillbirths recorded among the cases visited by the nurses (7.4). However, the percentage of stillbirths among the maternity cases included in the family survey <sup>14</sup> (9.0), which included a representative sample of the Brunswick-Greenville population, is somewhat higher than that for those visited by the nurses. Therefore it is probable that the reporting of stillbirths to the State bureau of vital statistics may not be complete.

According to the records of the State bureau of vital statistics, no maternal deaths occurred among the 244 maternity patients known to the nurses. However, according to the nursing records, one maternity patient who had been visited by the nurses died in a hospital outside of the study area and was not charged to the Brunswick-Greenville area.

#### SUMMARY

Two nurses, rendering a generalized type of public health nursing service to a population of approximately 34,000 people, reached through their home and office visits about 22 percent of the maternity cases occurring within the area during the study year. This percentage compares very favorably with the percentage of maternity cases reached each year by the nurses in Cattaraugus County, N. Y., and Rutherford County, Tenn., where the average population per nurse was about 6,000.

Because of the large colored population and the large percentage (75 percent) of births attended by untrained midwives, maternity hygiene was considered by the local and the State health departments to be one of the most important problems confronting the community. This area had a neonatal death rate of 34.1 per 1,000 live births, and, according to the Appraisal Form for Rural Health Work, at least 25 percent of all maternity cases should have been under ante-partum supervision if the maternity needs of the community were to have been met. Only 189, or about 18 percent, of all maternity cases occurring within the area received advice or service from the nurses during the ante-partum period, and the amount of service rendered to some of the cases was extremely limited. The appraisal form recommends five nursing visits during the ante-partum period and three visits during the post-partum period. The average number of ante-partum visits per case was 1.7, and the average number of post-partum visits per case was 1.4. However, when one considers the

<sup>14</sup> See footnote 4.

fact that there were but two nurses engaged on a generalized type of public health nursing program for 34,000 people scattered over 864 square miles, the extent of the maternity nursing service in this area would indicate that it received a reasonable share of the public health nursing service available to the people of that area.

These data represent the findings from a study of but one rural health department and do not warrant any widespread conclusions or recommendations. However, the study does suggest a number of questions which health administrators and public health nurses may wish to consider when planning a maternity nursing program.

First, what is the extent of the maternity problem and what percentage of the maternity cases should the nurses visit per year? If it is decided that 25 percent of the maternity cases should be receiving visits from the public health nurses, which 25 percent should be selected? Will any 25 percent be satisfactory or should a special effort be made to visit those women who are pregnant for the first time or who have had complications with previous pregnancies?

Second, the appraisal form recommends that each maternity case receive approximately five ante-partum and three post-partum visits. Should all maternity cases have the same number of visits? Will there be any variation in the individual needs of different women? Is it possible to reach a point of "diminishing returns" in prenatal visits, that is, are some prenatal cases visited unnecessarily frequently? On the other hand, if only one visit is made per case, are the results worth while?

Third, in those communities where a large proportion of the maternity cases are dependent upon midwives for delivery care, will the effectiveness of the nursing service be limited by the facilities for medical ante-partum and post-partum examination? What arrangements may be made by the health department for providing this necessary medical service?

Fourth, what provision is made for the nursing care of the newborn baby and the mother following delivery? Is it possible to give satisfactory instruction without actually demonstrating post-partum nursing care? If effective demonstrations are to be given, should the visit be made within the first 2 or 3 days following delivery? What methods are to be used to secure early information about the delivery?

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#### **DIRECTORY OF WHOLE-TIME COUNTY HEALTH OFFICERS, 1935**

The information contained in this directory of whole-time county health officers was obtained through questionnaires sent to each State department of health. For the purpose of insuring uniformity in the

returns, a "whole-time" county health officer was defined as "one who does not engage in the practice of medicine or in any other business but devotes all of his time to his official duties." Similar directories have been issued annually since 1922, with the exception of 1932. In 1934 the directory was issued as Reprint 1649 from the Public Health Reports.

The publication of directories of State health departments was begun in 1912 and, with the exception of the year 1932, has been continued without interruption to the present time. The 1934 directory was issued as Reprint 1675.

Directories of city health officers have been published annually since 1916, with the exception of 1932, when funds were not available either for this or other directories. In 1934 the directory was issued as Reprint 1685 from the Public Health Reports.

State and County	Name of health officer	Post office	Official title
<b>Alabama:</b>			
Autauga	G. W. Warrick, M. D.	Prattville	County health officer.
Barbour	E. M. Moore, M. D.	Clayton	Do.
Blount	S. D. Sturkie, M. D.	Oneonta	Do.
Bullock	L. G. Cole, M. D.	Union Springs	Do.
Calhoun	G. A. Cryer, M. D.	Anniston	Do.
Chambers	W. J. Donald, M. D.	LaFayette	Do.
Cherokee	S. C. Tatum, M. D.	Center	Do.
Cleburne	F. R. Wood, M. D.	Heflin	Do.
Colbert	A. M. Shelbarger, M. D.	Tuscaloosa	Do.
Conecuh	E. L. Kelly, M. D.	Evergreen	Do.
Covington	C. D. McLeod, M. D.	Andalusia	Do.
Crenshaw	J. O. Foster, M. D.	Luverne	Do.
Cullman	M. S. Whiteside, M. D.	Culman	Do.
Dale	W. L. Orr, M. D.	Ozark	Do.
Dallas	L. T. Lee, M. D.	Selma	Do.
Elmore	C. S. Cotlin, Jr., M. D.	Wetumpka	Do.
Escambia	G. T. Rowe, M. D.	Brewton	Do.
Etowah	G. L. Murphree, M. D.	Gadsden	Do.
Franklin	N. P. Underwood, M. D.	Russellville	Do.
Houston	F. G. Granger, M. D.	Dothan	Do.
Jackson	E. A. Thorne, M. D.	Scottsboro	Do.
Jefferson	J. D. Dowling, M. D.	Birmingham	Do.
Lamar	W. J. B. Owings, M. D.	Vernon	Do.
Lauderdale	W. D. Hubbard, M. D.	Florence	Do.
Lawrence	R. E. Harper, M. D.	Moulton	Do.
Lee	H. C. McRee, M. D.	Opelika	Do.
Limestone	W. A. Minisch, M. D.	Athens	Do.
Lowndes	E. F. Leatherwood, M. D.	Haynesville	Do.
Macon	Murray Smith, M. D.	Tuskegee	Do.
Madison	W. C. Hatchett, M. D.	Huntsville	Do.
Marengo	E. T. Norman, M. D.	Linden	Do.
Marion	W. T. Burkett, M. D.	Hamilton	Do.
Marshall	L. L. Parks, M. D.	Guntersville	Do.
Mobile	O. L. Chason, M. D., Dr. P. H.	Mobile	Do.
Monroe	R. D. Neal, M. D.	Monroeville	Do.
Montgomery	J. L. Bowman, M. D.	Montgomery	Do.
Morgan	L. R. Murphree, M. D.	Decatur	Do.
Perry	J. R. Long, M. D.	Marion	Do.
Pickens	J. J. Croley, M. D.	Carrollton	Do.
Pike	W. H. Abernethy, M. D.	Troy	Do.
Russell	M. L. Shaddix, M. D.	Phenix City	Do.
Shelby	H. T. Donovan, M. D.	Columbiana	Do.
Sumter	S. J. Williams, M. D.	Livingston	Do.
Talladega	J. H. Hill, M. D.	Talladega	Do.
Tallapoosa	C. C. Fargason, M. D.	Dadeville	Do.
Tuscaloosa	A. A. Kirk, M. D.	Tuscaloosa	Do.
Walker	A. M. Waldrop, M. D.	Jasper	Do.
Washington	I. C. Sumner, M. D.	Chatom	Do.
Wilcox	E. L. McIntosh, M. D.	Camden	Do.
Winston	M. R. McWhorter, M. D.	Double Springs	Do.

State and County	Name of health officer	Post office	Official title
<b>Arizona:</b>			
Cochise	R. B. Durfee, M. D.	Bisbee	Director.
Gila	Anson B. Ingels, M. D.	Globe	Do.
Maricopa	F. A. P. H. A., F. A. M. A.	Phoenix	Do.
Pima	A. N. Crain, M. D.	Tucson	Do.
<b>Arkansas:</b>			County health officer.
Ashley	A. M. Gibbs, M. D., B. S.	Hamburg	Do.
Clark	W. M. Smith, M. D., B. A.	Arkadelphia	Do.
Conway	A. B. Jemison, M. D.	Morrilton	Do.
Crittenden	B. M. Stevenson, M. D.	Marion	Do.
Cross	J. L. Griffin, M. D.	Wynne	Do.
Garland	J. F. Merritt, M. D.	Hot Springs	Do.
Jackson	M. B. Owens, M. D.	Newport	Do.
Jefferson	W. H. Bruce, M. D.	Pine Bluff	Do.
Little River	J. W. Ringgold, M. D.	Ashdown	Do.
Mississippi	A. M. Washburn, M. D.	Blytheville	Do.
Monroe	W. P. Scarlett, M. D.	Clarendon	Do.
Ouachita	R. C. Kennerly, M. D.	Camden	Do.
Phillips	W. B. Bruce, M. D.	Helena	Do.
Pope	A. B. Tate, M. D.	Russellville	Do.
Pulaski	J. A. Summers, M. D.	Little Rock	Do.
Saline	D. W. Fulmer, M. D.	Benton	Do.
Sebastian	J. E. Johnson, M. D.	Fort Smith	Do.
Woodruff	J. F. Hays, M. D.	Augusta	Do.
Yell	J. K. Grace, M. D., B. S.	Danville	Do.
<b>California:</b>			
Alameda	I. O. Church, M. D., C. P. H.	Oakland	Do.
Contra Costa	W. A. Powell, M. D.	Martinez	Do.
Fresno	W. F. Stein, M. D.	Fresno	Do.
Imperial	W. F. Fox, M. D.	El Centro	Do.
Los Angeles	J. L. Pomeroy, M. D.	Los Angeles	Do.
Madera	Lee A. Stone, M. D.	Madera	Do.
Monterey	R. M. Fortier, M. D.	Salinas	Do.
Orange	K. H. Sutherland, M. D.	Santa Ana	Do.
Riverside	W. A. Jones, M. D.	Riverside	Do.
San Bernardino	E. F. Godfrey, M. D.	San Bernardino	Do.
San Joaquin	J. J. Sippy, M. D.	Stockton	District health officer.
San Diego	A. M. Lesem, M. D.	San Diego	County health officer.
San Luis Obispo	A. F. Gillihan, M. D.	San Luis Obispo	Do.
San Mateo	Harper Peddicord	Redwood City	Do.
Santa Barbara	R. C. Main, M. D.	Santa Barbara	Do.
Stanislaus	E. F. Reamer, M. D.	Modesto	Do.
<b>Connecticut:</b>			
West Hartford <sup>1</sup>	H. B. Smith, M. D., C. P. H.	West Hartford	Superintendent of health.
Fairfield <sup>1</sup>	L. E. Poole, M. D.	Fairfield	Health officer.
<b>Delaware:</b>			
Kent	E. F. Smith, M. D.	Dover	County health officer.
New Castle	J. R. Downs, M. D.	Newark	Do.
Sussex	F. I. Hudson, M. D.	Georgetown	Do.
<b>Florida:</b>			
Escambia	W. A. McPhaul, M. D.	Pensacola	Do.
Leon	L. J. Graves, M. D.	Tallahassee	Do.
<b>Georgia:</b>			
Baldwin	O. F. Moran, M. D.	Milledgeville	Commissioner of health.
Bartow	A. C. Shamblin, M. D.	Cartersville	Do.
Bibb	J. D. Applewhite, M. D.	Macon	Do.
Chatham	V. H. Bassett, M. D.	Savannah	Do.
Clarke	W. W. Brown, M. D.	Athens	Do.
Cobb	J. E. Lester, M. D.	Marietta	Do.
Colquitt	T. H. Chestnut, M. D.	Moultrie	Do.
Decatur	M. A. Fort, M. D.	Bainbridge	Do.
DeKalb	J. R. Evans, M. D.	Decatur	Do.
Dougherty	Hugo Robinson, M. D.	Albany	Do.
Floyd	B. V. Elmore, M. D.	Rome	Do.
Glenn, McIntosh, Camden	M. E. Winchester, M. D.	Brunswick	Do.
Grady	H. P. Rankin, M. D.	Cairo	Do.
Hall	C. J. Wellborn, M. D.	Gainesville	Do.
Jefferson	L. R. Bryson, M. D.	Louisville	Do.
Jenkins	H. B. Senn, M. D.	Millen	Do.
Laurens	O. H. Cheek, M. D.	Dublin	Do.
Lowndes	G. T. Crozier, M. D.	Valdosta	Do.
Mitchell	C. O. Rainey, M. D.	Camilla	Do.
Richmond	H. Grady Callison, M. D.	Augusta	Do.
Spalding	W. C. Humphries, M. D.	Griffin	Do.
Sumter	A. J. Davis, M. D.	Americus	Do.
Thomas	J. R. Dykes, M. D.	Thomasville	Do.
Troup	S. C. Rutland, M. D.	Lagrange	Do.

<sup>1</sup> Town.

State and County	Name of health officer	Post office	Official title
Georgia—Continued.			
Ware.....	Geo. E. Atwood, M. D.....	Waycross.....	Commissioner of health.
Washington.....	O. L. Rogers, M. D.....	Sandersville.....	Do.
District Health Unit No. 1.....	R. Floyd Payne, M. D.....	Lafayette.....	District health commis- sioner.
Catoosa.....			
Walker.....			
Illinois:			
DuPage.....	W. F. Hopf, D. D. S.....	Wheaton.....	County health officer.
Iowa:			
Woodbury.....	W. S. Petty, M. D.....	Sioux City.....	Director.
Kansas:			
Lyon.....	C. Herbert Munger, M. D.....	Emporia.....	County health officer.
Sedgwick.....	J. C. Montgomery, M. D.....	Wichita.....	Do.
Shawnee.....	Frank E. McCord, M. D.....	Topeka.....	Do.
Kentucky:			
Adair.....	N. A. Mercer, M. D., M. P. H.	Columbia.....	Do.
Allen.....	C. W. Holland, M. D.....	Scottsville.....	Do.
Anderson.....	S. R. Bogess, M. D.....	Lawrenceburg.....	Do.
Barren.....	Chas. M. Moore, M. D.....	Glasgow.....	Do.
Bath.....	J. S. Goodpaster, M. D.....	Owingsville.....	Do.
Boyd.....	R. D. Higgins, M. D.....	Ashland.....	Do.
Breathitt.....	B. K. Amos, M. D.....	Jackson.....	Do.
Butler.....	C. C. Threlkel, M. D.....	Morgantown.....	Do.
Caldwell.....	J. O. Nall, M. D.....	Princeton.....	Do.
Calloway.....	Jas. A. Outland, M. D.....	Murray.....	Do.
Carlisle.....	J. F. Harrell, M. D.....	Bardwell.....	Do.
Carter.....	A. S. Yates, M. D.....	Grayson.....	Do.
Casey.....	J. W. Scudder, M. D.....	Liberty.....	Do.
Clay.....	L. H. Wagers, M. D.....	Manchester.....	Do.
Clinton.....	M. W. Williamson, M. D.....	Albany.....	Do.
Edmonson.....	Sidney Simpson, M. D.....	Brownsville.....	Do.
Elliott.....	B. H. Preston, M. D.....	Sandy Hook.....	Do.
Estill.....	R. R. Snowden, M. D.....	Irvine.....	Do.
Fayette.....	C. D. Cawood, M. D.....	Lexington.....	Do.
Fleming.....	C. W. Christine.....	Flemingsburg.....	Do.
Floyd.....	Marvin Ransdell, M. D.....	Prestonsburg.....	Do.
Fulton.....	Hugh E. Frather, M. D.....	Hickman.....	Do.
Gallatin.....	J. W. Miller, M. D.....	Warsaw.....	Do.
Grant.....	N. H. Ellis, M. D.....	Williamstown.....	Do.
Grayson.....	C. F. Blankenship, M. D.....	Leitchfield.....	Do.
Green.....	J. M. Dishman, M. D.....	Greensburg.....	Do.
Greenup.....	C. W. Monroe, M. D.....	Greenup.....	Do.
Hart.....	C. P. Shields, M. D.....	Munfordville.....	Do.
Henderson.....	J. L. Tanner, M. D.....	Henderson.....	Do.
Hickman.....	Chas. Hunt, M. D.....	Clinton.....	Do.
Hopkins.....	C. R. Morton, M. D.....	Madisonville.....	Do.
Jackson.....	C. A. Wathen, M. D.....	McKee.....	Do.
Jefferson.....	Jno. D. Trawick, M. D.....	Louisville.....	Do.
Kenton.....	H. C. White, M. D.....	Covington.....	Do.
Knott.....	J. W. Duke, M. D.....	Hindman.....	Do.
Knox.....	C. W. Faison, M. D.....	Barbourville.....	Do.
Laurel.....	G. S. Brock, M. D.....	London.....	Do.
Lawrence.....	W. C. Gose, M. D.....	Louisa.....	Do.
Lee.....	E. M. Brown, M. D.....	Beattyville.....	Do.
Leslie.....	D. D. Turner, M. D.....	Hyden.....	Do.
Letcher.....	R. D. Collins, M. D.....	Whitesburg.....	Do.
Lincoln.....	K. T. Johnstone, M. D.....	Stanford.....	Do.
McCreary.....	Adam Stacy, M. D.....	Whitley City.....	Do.
McLean.....	G. L. Thompson, M. D.....	Calhoun.....	Do.
Madison.....	G. R. Rountree, M. D.....	Richmond.....	Do.
Marshall.....	S. L. Henson, M. D.....	Benton.....	Do.
Martin.....	W. N. Kiet, M. D.....	Inez.....	Do.
Mason.....	Allen F. Murphy, M. D.....	Maysville.....	Do.
Meade.....	O. R. Lynch, M. D.....	Brandenburg.....	Do.
Menifee.....	E. T. Riley, M. D.....	Frenchburg.....	Do.
Metcalfe.....	H. T. Carter, M. D.....	Edmonton.....	Do.
Monroe.....	G. W. Bushong, M. D.....	Tompkinsville.....	Do.
Muhlenberg.....	Roy Orsburn, M. D.....	Greenville.....	Do.
Nicholas.....	E. W. Atherton, M. D.....	Carlisle.....	Do.
Ohio.....	A. D. Prk, M. D.....	Hartford.....	Do.
Owsley.....	Don E. Wilder, M. D.....	Booneville.....	Do.
Perry.....	D. D. Carr, M. D., C. F. H.	Pikeville.....	Do.
Pike.....	R. E. Teague, M. D., C. P. H.	do.....	Do.
Powell.....	M. H. Skaggs, M. D.....	Stanton.....	Do.
Pulaski.....	J. C. McGuire, M. D.....	Somerset.....	Do.
Rockcastle.....	Walker Owens, M. D.....	Mount Vernon.....	Do.
Rowan.....	T. A. E. Evans, M. D.....	Morehead.....	Do.
Scott.....	F. W. Caudill, M. D., C. P. H.	Georgetown.....	Do.
Todd.....	L. A. Crosby, M. D.....	Elkton.....	Do.

State and County	Name of health officer	Post office	Official title
Kentucky—Continued			
Trigg	E. W. Sigler, M. D.	Cadiz	County health officer.
Trimble	J. J. Gerkins, M. D.	Bedford	Do.
Union	J. F. Lynn, M. D.	Moranfield	Do.
Warren	G. M. Wells, M. D.	Bowling Green	Do.
Wayne	Mack Roberts, M. D.	Monticello	Do.
Webster	C. M. Smith, M. D.	Dixon	Do.
Wolfe	J. L. Cox, M. D.	Campton	Do.
Louisiana: <sup>2</sup>			
Assumption	P. M. Payne, M. D.	Napoleonville	Director.
Avoyelles	L. W. Holloman, M. D.	Marksville	Do.
Caddo	W. J. Sandidge, M. D.	Shreveport	Do.
Caldwell	Thomas Burk, M. D.	Columbia	Do.
Catahoula	L. C. Spencer, M. D.	Harrisonburg	Do.
Clairborne	H. R. Marlatt, M. D.	Homer	Do.
Concordia	John Schreiber, M. D.	Vidalia	Do.
De Soto	R. A. Tharp, M. D.	Mansfield	Do.
East Carroll	G. D. Williams, M. D.	Lake Providence	Do.
Franklin	R. E. Applewhite, M. D.	Winnboro	Do.
Iberia	B. L. Stinson, M. D.	New Iberia	Do.
Iberville	J. C. Eby, M. D., Phar.	Plaquemine	Do.
Lafayette	D.	Lafayette	Do.
LaFourche	A. J. Comeaux, M. D.	Thibodaux	Do.
La Salle	H. S. Smith, M. D.	Jena	Do.
Lincoln	E. L. Miller, M. D.	Ruston	Do.
Madison	R. H. Allen, M. D.	Tallulah	Do.
Morehouse	E. S. Freeman, M. D.	Bastrop	Do.
Natchitoches	N. P. Liles, M. D.	Natchitoches	Do.
Ouachita	W. W. Knipmeyer, M.	D.	Do.
Ouachita	D., C. P. H.	John W. Williams, M. D.,	Do.
Pointe Coupee	C. P. H.	C. P. H.	Do.
Pointe Coupee	F. F. Rougon, M. D.,	Ph. G.	Do.
Rapides	Branch J. Aymond, M. D.	New Roads	Do.
Red River	H. S. Smith, M. D.	Alexandria	Acting director.
Richland	B. Hochfelder, M. D.	Coushatta	Director.
St. Landry	R. O. C. Green, M. D.	Rayville	Do.
St. Martin	L. A. Masterson, M. D.	Opelousas	Do.
St. Mary	P. H. Fleming, M. D.	St. Martinville	Do.
Tensas	W. W. Polmboeuf, M. D.	Franklin	Do.
Terrebonne	W. B. Summers, Jr., M. D.	St. Joseph	Do.
Washington	M. F. Houston, M. D.	Houma	Do.
Webster	F. A. Williams, M. D.	Franklin	Do.
West Carroll	W. C. Summer, M. D.	Minden	Do.
West Carroll	F. S. Williams, M. D.	Oak Grove	Do.
Maine: <sup>3</sup>			
Bar Harbor	Frank O. Alley, C. P. H.	Bar Harbor	Health officer.
Rumford	Thomas S. Burr, M. D.	Rumford	Do.
Sanford	W. H. Kelly, M. D.	Sanford	Do.
Cooperative Health Union	B. L. Arms, M. D.	Farmington	Do.
Avon			
Chesterville			
Dallas Plantation			
Eutis			
Industry			
Livermore			
Lang Plantation			
New Sharon			
Rangeley			
Sandy River			
Plantation			
Farmington			
Strong			
Temple			
Weld			
Motbow Union	Howard L. Jackson, M. D.	Old Town	Do.
Bradley			
Milford			
Old Town			
Orono			
Venzie			
Maryland:			
Allegany	J. P. Franklin, M. D.	Cumberland	Deputy State and county health officer
Anne Arundel	John H. Janney, Jr., M. D.	Annapolis	Do.
Baltimore	J. S. Bown, M. D.	Towson	Do.
Calvert	I. N. King, M. D.	Prince Frederick	Do.
Caroline	Louis S. Welty, M. D.	Denton	Do.
Carroll	W. C. Stone, M. D.	Westminster	Do.
Cecil	C. A. Kane, M. D.	Elkton	Do.

<sup>2</sup> Parish.<sup>3</sup> Township or district.

State and County	Name of health officer	Post office	Official title
Maryland—Con. Charles	J. S. Cunningham, M. D.	La Plata	Deputy State and county health officer.
Dorchester	E. A. Jones, M. D.	Cambridge	Do.
Frederick	E. C. Kefauver, M. D.	Frederick	Do.
Garrett	Eugene C. Peck, M. D.	Oakland	Do.
Harford	T. A. Callahan, M. D.	Bel Air	Do.
Howard	Wm. J. French, M. D.	Ellicott City	Do.
Kent	R. G. Beachley, M. D., D. P. H.	Chestertown	Do.
Montgomery	V. L. Ellicott, M. D., D. P. H.	Rockville	Do.
Prince Georges	A. B. Hooton, M. D.	Upper Marlboro	Do.
Queen Anne's	James A. McCallum, M. D.	Centreville	Do.
St. Marys	D. St. Clair Campbell, M. D.	Leonardtown	Do.
Somerset	Robert H. Johnson, M. D.	Princess Anne	Do.
Talbot	G. C. Hally, M. D.	Easton	Do.
Washington	W. Ross Cameron, M. D.	Hagerstown	Do.
Wicomico	Seth H. Hurdle, M. D.	Salisbury	Do.
Worcester	Bradford Massey, M. D.	Pocomoke City	Do.
Massachusetts:			
Barnstable	Almon P. Goff, M. D.	Hyannis	County health officer.
Nashoba	James O. Walls, M. D., C. P. H.	Ayer	Director public health.
Southern Berk- shire. <sup>4</sup>	Harold W. Stevens, M. D.	Great Barrington	Medical director.
Michigan:			
Allegan	A. B. Mitchell, M. D.	Allegan	County health officer.
Barry	R. B. Harkness, M. D.	Hastings	Do.
Eaton	J. W. Davis, M. D.	Charlotte	Do.
Genesee	T. E. Gibson, M. D.	Flint	Do.
Hillsdale	E. G. McGavran, M. D.	Hillsdale	Do.
Isabella	F. R. Town, M. D.	Mount Pleasant	Do.
Kent	J. D. Brook, M. D.	Grand Rapids	Do.
Midland	David Littlejohn, M. D.	Midland	Do.
Oakland	John D. Monroe, M. D.	Pontiac	Do.
Ottawa	Ralph Ten Have, M. D.	Grand Haven	Do.
Saginaw	Wm. H. Pickett, M. D., C. P. H.	Saginaw	Do.
Van Buren	T. R. Meyer, M. D.	Paw Paw	Do.
Wexford	S. C. Moore, M. D.	Cadillac	Do.
District health unit.	Guy R. Post, M. D., C. P. H.	White Cloud	District health officer.
Lake.			
Newaygo.			
Oceana.			
District health unit.	Gladys Kleinschmidt, M. D.	West Branch	Do.
Alcona.			
Iosco.			
Ogemaw.			
Oscoda.			
District health unit.	Carleton Dean, M. D., C. P. H.	Charlevoix	Do.
Antrim.			
Charlevoix.			
Emmet.			
Otsego.			
District health unit.	G. B. Moffat, M. D., D. P. H.	Rogers City	Do.
Alpena.			
Cheboygan.			
Montmorency.			
Presque Isle.			
Township of Grosse Pointe.	B. H. Warren, M. D.	Grosse Pointe	Township health director.
Villages of—			
Grosse Pointe Park.			
Grosse Pointe			
Grosse Pointe Farms.			
Grosse Pointe Shores.			
Lochmoor.			
Minnesota:			
St. Louis	Carl A. Scherer, M. D.	Duluth	County health officer.

<sup>4</sup> District.

State and County	Name of health officer	Post office	Official title
Mississippi:			
Adams.....	A. R. Perry, M. D., M. P. H.	Natchez.....	Director.
Bolivar.....	R. D. Dedwylder, M. D.	Cleveland.....	Do.
Coahoma.....	N. C. Knight, M. D., C. P. H.	Clarksdale.....	Do.
Copiah.....	J. W. Dugger, M. D.	Hazelhurst.....	Do.
Forrest.....	B. D. Blackwelder, M. D., C. P. H.	Hattiesburg.....	Do.
Hancock.....	C. M. Shipp, M. D.	Bay St. Louis.....	Do.
Harrison.....	Daniel J. Williams, M. D.	Gulfport.....	Do.
Hinds.....	W. E. Noblin, M. D.	Jackson.....	Do.
Holmes.....	C. J. Vaughn, M. D., C. P. H.	Lexington.....	Do.
Humphreys.....	J. W. Barkley, M. D.	Belzoni.....	Do.
Jackson.....	R. G. Lander, M. D.	Pascagoula.....	Do.
Lamar.....	J. N. Mason, M. D.	Purvis.....	Do.
Lauderdale.....	D. V. Galloway, M. D., M. P. H.	Meridian.....	Do.
Lee.....	W. H. Cleveland, M. D.	Tupelo.....	Do.
LeFlore.....	L. A. Barnett, M. D.	Greenwood.....	Do.
Lincoln.....	W. R. May, M. D., C. P. H.	Brookhaven.....	Do.
Monroe.....	C. H. Love, M. D.	Aberdeen.....	Do.
Pearl River.....	G. E. Godman, M. D.	Poplarville.....	Do.
Pike.....	T. Paul Haney, Jr., M. D., C. P. H.	McComb.....	Do.
Sharkey.....	A. K. Barrier, M. D.	Rolling Fork.....	Do.
Sunflower.....	C. C. Smith, M. D.	Indiana.....	Do.
Union.....	I. B. Trapp, M. D.	New Albany.....	Do.
Warren.....	F. Michael Smith, M. D.	Vicksburg.....	Do.
Washington.....	John W. Shackelford, M. D., M. P. H.	Greenville.....	Do.
Yazoo.....	H. L. McCalip, M. D., C. P. H.	Yazoo City.....	Do.
Missouri:			
Buchanan.....	W. S. Hull, M. D.	St. Joseph.....	Field agent.
Dunklin.....	Wheeler Davis, M. D.	Kennett.....	Do.
Greene.....	J. W. Williams, Jr., M. D.	Springfield.....	Do.
Jackson.....	Jos. T. Brennan, M. D.	Independence.....	Do.
Marion.....	E. M. Lucke, M. D.	Hannibal.....	Do.
Miller.....	L. M. Garner, M. D.	Tuscumbia.....	Do.
New Madrid.....	Wm. O'Bannon, M. D.	New Madrid.....	Do.
St. Louis.....	L. C. Obrock, M. D.	Clayton.....	Do.
Montana:			
Cascade.....	F. L. Watkins, M. D.	Great Falls.....	Health officer.
Gallatin.....	A. D. Brewer, M. D.	Bozeman.....	Do.
Lewis & Clark.....	Wm. M. Copenhaver, M. D.	Helena.....	Do.
Missoula.....	F. D. Pease, M. D.	Missoula.....	Do.
New Mexico:			
Bernalillo.....	C. Howe Eller, M. D., D. P. H.	Albuquerque.....	County health officer.
Dona Ana.....	C. W. Gerber, M. D.	Las Cruces.....	Do.
Eddy.....	O. E. Puckett, M. D.	Carlsbad.....	Do.
Santa Fe.....	E. F. McIntyre, M. D.	Santa Fe.....	Do.
Union.....	R. H. Wilson, M. D.	Clayton.....	Do.
Valencia.....	M. O. Blakeslee, M. D.	Los Lunas.....	Do.
New York:			
Cattaraugus <sup>1</sup> .....	Reginald M. Atwater, M. D., D. P. H.	Olean.....	Commissioner of health.
Columbia <sup>1</sup> .....	Louis Van Hoosen, M. D.	Hudson.....	Do.
Cortland <sup>1</sup> .....	Daniel R. Rielly, M. D., C. P. H.	Cortland.....	Do.
Suffolk <sup>1</sup> .....	Arthur T. Davis, M. D.	Riverhead.....	Do.
Westchester <sup>1</sup> .....	Matthias Nicoll, M. D.	White Plains.....	Do.
District.....	H. J. Ball, M. D.	Utica.....	District State health officer.
Herkimer.....			
Madison.....			
Oneida.....			
District.....	R. D. Champlin, M. D., C. P. H.	Oneonta.....	Do.
Chenango.....			
Delaware.....			
Otsego.....			
Schoharie.....			
District.....	J. A. Conway, M. D.	Hornell.....	Do.
Broome.....			
Chemung.....			
Steuben.....			
Tioga.....			
Tompkins.....			

<sup>1</sup> Under direct supervision of county health commissioner and general supervision of district State health officer.

State and County	Name of health officer	Post office	Official title
New York—Con.			
District.....	F. E. Couglan, M. D., A. B., D. P. H.	Albany.....	District State health of- ficer.
Albany.			
Columbia. <sup>3</sup>			
Greene.			
Rensselaer.			
District.....	A. S. Dean, B. S., M. D., D. P. H.	Buffalo.....	Do.
Cattaraugus. <sup>4</sup>			
Chautauqua.			
Erie.			
Genesee.			
Niagara.			
Orleans.			
Wyoming.			
District.....	M. D. Dickinson, M. D.	New York City.....	Do.
Nassau.			
Suffolk. <sup>4</sup>			
District.....	B. Diefendorf, M. D.....	Ticonderoga.....	Do.
Clinton.			
Essex.			
Franklin.			
Hamilton. <sup>4</sup>			
Warren.			
Washington.			
District.....	C. R. Hervey, M. D.....	Oswego.....	Do.
Cayuga. <sup>7</sup>			
Oswego.			
Wayne.			
District.....	F. W. Laidlaw, M. D.....	Middletown.....	Do.
Orange.			
Rockland.			
Sullivan.			
Ulster.			
Westchester. <sup>5</sup>			
District.....	B. E. Roberts, B. S., M. D.	Poughkeepsie.....	Do.
Dutchess.			
Putnam.			
District.....	S. W. Sayer, M. D.....	Gouverneur.....	Do.
Jefferson.			
Lewis.			
St. Lawrence.			
District.....	P. J. Raffe, M. D., C. P. H.	Syracuse.....	Do.
Cayuga. <sup>7</sup>			
Cortland. <sup>5</sup>			
Onondaga.			
Seneca.			
District.....	B. R. Wakeman, M. D.....	Hornell.....	Do.
Allegany.			
Livingston.			
Monroe.			
Ontario.			
Schuyler.			
Yates.			
District.....	J. S. Walton, M. D.....	Amsterdam.....	Do.
Fulton. <sup>8</sup>			
Hamilton. <sup>4</sup>			
Montgomery. <sup>3</sup>			
Saratoga.			
Schenectady.			
District.....	J. E. Perkins, M. D., D. P. H.	do.....	Do.
Fulton. <sup>8</sup>			
Montgomery. <sup>3</sup>			
North Carolina:			
Beaufort.....	David Emerson Ford, M. D.	Washington.....	County health officer.
Bertie.....	F. H. Garriss, M. D.	Windsor.....	Do.
Bladen.....	Robert S. Cromartie, M. D.	Elizabethtown.....	Do.
Buncombe.....	Howard L. Sumner, M. D.	Asheville.....	Do.
Cabarrus.....	Daniel G. Caldwell, M. D.	Concord.....	Do.
Columbus.....	Floyd Johnson, M. D.	Whiteville.....	Do.
Cumberland.....	Malcolm T. Foster, M. D.	Fayetteville.....	Do.
Davidson.....	Grover C. Gambrell, M. D.	Lexington.....	Do.
Duplin.....	C. H. White, M. D.	Kenansville.....	Do.
Durham.....	J. H. Epperson, M. S.	Durham.....	Do.
Edgecombe.....	Rembert Ernest Broad- way, M. D.	Tarboro.....	Do.

<sup>3</sup> Under direct supervision of county health commissioner and general supervision of district State health officer.

<sup>4</sup> Long Lake and Indian Lake Townships under supervision of Dr. Diefendorf; balance of county under supervision of Dr. Walton.

<sup>5</sup> Townships of Sterling, Victory, Ira, Conquest, and Cato under supervision of Dr. Hervey; balance of county under supervision of Dr. Raffe.

<sup>6</sup> Under direct supervision of Dr. Perkins and general supervision of Dr. Walton.

State and County	Name of health officer	Post office	Official title
North Carolina—Con.			
Franklin	R. F. Yarborough, M. D.	Louisburg	County health officer
Gaston	Robert E. Rhyne, M. D.	Gastonia	Do.
Granville	Jos. A. Morris, M. D.	Oxford	Do.
Guildford	R. M. Buie, M. D.	Greensboro	Do.
Halifax	R. S. McGeachy, M. D.	Weldon	Do.
Hyde	S. V. Lewis, M. D.	Ocracoke	Do.
Lenoir	Z. V. Moseley, M. D.	Kinston	Do.
Mecklenburg	E. H. Hand, M. D.	Charlotte	Do.
Moore	John Symington, M. D.	Carthage	Do.
Nash	T. O. Coppedge, M. D.	Nashville	Do.
New Hanover	A. H. Elliott, M. D.	Wilmington	Do.
Northampton	M. H. Seawell, M. D.	Jackson	Do.
Pitt	N. T. Ennett, M. D.	Greenville	Do.
Randolph	A. D. Gregg, M. D.	Ashboro	Do.
Richmond	B. B. Dalton, M. D.	Rockingham	Do.
Roberson	E. R. Hardin, M. D.	Lumberton	Do.
Rowan	Chas. W. Armstrong, M. D.	Salisbury	Do.
Rutherford	R. M. Bardin, M. D.	Rutherfordton	Do.
Sampson	W. P. Starling, M. D.	Clinton	Do.
Surry	J. A. Whitaker, M. D.	Mount Airy	Do.
Vance	Z. P. Mitchell, M. D.	Henderson	Do.
Wake	Alex. C. Bulla, M. D.	Raleigh	Do.
Wayne	G. Fletcher Reeves, M. D.	Goldsboro	Do.
Wilkes	A. J. Eller, M. D.	Wilkesboro	Do.
Wilson	Wade H. Anderson, M. D.	Wilson	Do.
District	W. P. Richardson, M. D.	Burnsville	District health officer.
Avery.			
Yancey.			
District	John Roy Hege, M. D.	Winston-Salem	Do.
Forsyth.			
Stokes.			
Yadkin.			
District	C. N. Sisk, M. D.	Waynesville	Do.
Haywood.			
Jackson.			
Swain.			
Ohio:			
Allen	J. J. Sutter, M. D.	Lima	Health commissioner.
Athens	J. M. Higgins, M. D.	Athens	Do.
Butler	C. J. Baldridge, M. D.	Hamilton	Do.
Clinton	W. K. Ruble, M. D.	Wilmington	Do.
Crawford	G. T. Wasson, M. D.	Bucyrus	Do.
Cuyahoga	Robert Lockhart, M. D.	Cleveland	Do.
Darke	W. D. Bishop, M. D.	Greenville	Do.
Delaware	B. B. Barber, M. D.	Delaware	Do.
Erie	F. M. Houghtaling, M. D.	Sandusky	Do.
Fayette	James F. Wilson, M. D.	Washington Court-house	Do.
Hamilton	E. H. Schoenling, M. D.	Cincinnati	Do.
Hancock	S. F. Whisler, M. D.	Findlay	Do.
Hocking	W. B. Lacock, M. D.	Logan	Do.
Huron	B. C. Pilkey, M. D.	Norwalk	Do.
Jefferson	J. P. Young, M. D.	Steubenville	Do.
Lorain	F. R. Dew, M. D.	Oberlin	Do.
Lucas	F. F. Devore, M. D.	Toledo	Do.
Mahoning	G. Y. Davis, M. D.	Youngstown	Do.
Marion	N. Sifritt, M. D.	Marion	Do.
Medina	T. W. Mahoney, M. D.	Medina	Do.
Meigs	W. S. Ellis, M. D.	Pomeroy	Do.
Morenci	F. E. Ayers, M. D.	Celina	Do.
Miami	E. R. Hiatt, M. D.	Troy	Do.
Montgomery	H. H. Panning, M. D.	Dayton	Do.
Perry	F. J. Crosbie, M. D.	New Lexington	Do.
Pickaway	C. C. Beale, M. D.	Circleville	Do.
Proble	J. I. Nisbet, M. D.	Eaton	Do.
Richland	M. D. Hanson, M. D.	Mansfield	Do.
Ross	R. E. Bower, M. D.	Chillicothe	Do.
Seneca	D. W. Fellers, M. D.	Tiffin	Do.
Shelby	A. B. Lippert, M. D.	Sidney	Do.
Stark	Floyd R. Stamp, M. D.	Canton	Do.
Summit	R. H. Markwith, M. D.	Akron	Do.
Trumbull	L. A. Connell, M. D.	Warren	Do.
Tuscarawas	J. Blickensderfer, M. D.	New Philadelphia	Do.
Washington	A. G. Sturgiss, M. D.	Marietta	Do.
Wayne	W. G. Rhoden, M. D.	Wooster	Do.
Wood	H. J. Powell, M. D.	Bowling Green	Do.
Oklahoma:			
Le Flore	Rush L. Wright, M. D.	Poteau	Local health director.
Oregon:			
Clackamas	A. H. Johnston, M. D.	Oregon City	County health officer.
Douglas	J. E. Campbell, M. D.	Roseburg	Do.
Jackson	C. I. Drummond, M. D.	Medford	Do.
Klamath	G. S. Newsom, M. D.	Klamath Falls	Do.
Lane	R. C. Romig, M. D.	Eugene	Do.

State and County	Name of health officer	Post office	Official title
Oregon—Continued.			
Marion	Vernon Douglas, M. D.	Salem	County health officer.
Multnomah	H. R. Cliff, M. D.	Portland	Do.
South Carolina:			
Aiken	J. T. Hair, M. D.	Aiken	Local health director.
Anderson	E. E. Epting, M. D.	Anderson	Do.
Beaufort	W. A. Carrigan, M. D.	Beaufort	Do.
Berkeley	W. K. Fishburne, M. D.	Moncks Corner	Do.
Charleston	Leon Banov, M. D.	Charleston	Do.
Cherokee	E. P. White, M. D., D. P. H.	Gaffney	Do.
Darlington	G. B. Edwards, M. D.	Darlington	Do.
Dillon-Marion *	H. F. Wilson, M. D.	Dillon	Do.
Dorchester	B. M. Montgomery, M. D.	St. George	Do.
Fairfield	J. L. Bryson, M. D.	Winnsboro	Do.
Florence	J. R. Claussen, M. D.	Florence	Do.
Georgetown-Horry *	S. Simons, M. D., C. P. H.	Georgetown	Do.
Greenville	Byllis Earle, M. D.	Greenville	Do.
Greenwood	J. E. Brodie, M. D.	Greenwood	Do.
Kershaw	A. W. Humphries, M. D.	Camden	Do.
Newberry	Claude Sease, M. D.	Newberry	Do.
Oconee	B. F. Sloan, M. D.	Walhalla	Do.
Orangeburg	G. C. Bolin, M. D.	Orangeburg	Do.
Pickens	W. B. Furman, M. D.	Pickens	Do.
Richland	R. W. Ball, M. D.	Columbia	Do.
Spartanburg	J. M. Beeler, M. D.	Spartanburg	Do.
Tennessee:			
Blount	Owen F. Agee, M. D.	Maryville	County health officer.
Bradley	W. C. Sanford, M. D.	Cleveland	Director health unit.
Davidson	J. J. Lentz, M. D.	Nashville	County health officer.
Gibson	F. L. Roberts, M. D.	Trenton	Do.
Giles	J. U. Speer, M. D.	Pulaski	Director health unit.
Greene	R. S. Cowles, M. D.	Greeneville	Director department of health.
Grundy	U. B. Bowden, M. D.	Pulham	Director health unit.
Hamilton	J. C. Eldridge, M. D.	Chattanooga	Director health department.
Hardeman	R. L. Cobb, M. D.	Bolivar	Director health unit.
Humphreys	J. W. Frost, M. D.	Waverly	Director health department.
Knox	A. G. Hufstedler, M. D.	Knoxville	Do.
Lake	J. P. Moon, M. D.	Tiptonville	Do.
Lauderdale	R. B. Griffin, M. D.	Ripley	Director health unit.
Lincoln	M. F. Brown, M. D.	Fayetteville	Director health department.
Maury	H. C. Busby, M. D., C. P. H.	Columbia	Do.
Monroe	D. M. Cogwill, M. D.	Madisonville	Director health unit.
Montgomery	F. J. Malone, M. D.	Clarksville	Director health department.
Obion	W. B. Harrison, M. D.	Union City	County health officer.
Roane	J. C. Fly, M. D.	Kingston	Director health department.
Rutherford	J. B. Black, M. D., C. P. H.	Murfreesboro	County health officer.
Sevier	R. C. Kash, M. D.	Sevierville	Director health department.
Shelby	W. P. Moore, M. D.	Memphis	County health officer.
Sullivan	F. L. Moore, M. D., C. P. H.	Blountville	Director health department.
Sumner	H. M. Kelso, M. D., C. P. H.	Gallatin	Do.
Tipton	A. J. Butler, M. D., C. P. H.	Covington	Do.
Washington	W. L. Poole, M. D., C. P. H.	Jonesboro	Acting director health department.
Weakley	M. D. Ingram, M. D.	Dresden	County health officer.
Williamson	R. K. Galloway, M. D., C. P. H.	Franklin	Director health department.
Wilson	W. D. Cagle, M. D.	Lebanon	Do.
Districts:			
Anderson	C. B. Tucker, M. D., C. P. H.	Clinton	Director health district.
Campbell	R. B. Howard, M. D., C. P. H.	Elizabethton	Do.
Carter-Unicoi	H. M. Roberson, M. D.	Pikeville	Do.
Bledsoe-Sequatchie	F. B. Clark, M. D.	Gainsboro	Do.
Jackson-Fentress	J. Y. O'Daniel, M. D.	Dayton	Do.
Rhea-Meigs	H. E. Duncan, M. D.	Dallas	Director county health unit.
Texas:	T. J. McCamaat, M. D.	El Paso	Do.
Dallas			
El Paso			

State and County	Name of health officer	Post office	Official title
Texas—Continued.			
Gregg	T. B. Wilson, M. D.	Longview	Assistant director county health unit.
Hidalgo	D. R. Handley, M. D.	Edinburg	Director county health unit.
Nolan	E. W. Prothro, M. D.	Sweetwater	Do.
Potter	B. M. Primer, M. D., M. P. H.	Amarillo	Do.
Tarrant	Burke Brewster, M.D.	Fort Worth	Do.
Utah:			
Davis	S. Gleason, M. D.	Kaysville	Director.
Vermont:			
Burlington	E. F. Foster, M. D.	Burlington	Health officer.
Montpelier	C. H. Burr, M. D.	Montpelier	Do.
Rutland	C. M. Cole	Rutland	Do.
Bennington	J. M. Ayers	Bennington	Do.
Virginia:			
Albemarle	R. A. G. Jones, M. D.	Charlottesville	Acting health officer.
Alleghany-Rockbridge. <sup>10</sup>	R. P. Cook, M. D.	Lexington	Health officer.
Arlington	P. M. Chichester, M. D.	Clarendon	Do.
Augusta	Harry M. Wallace, M. D.	Staunton	Do.
Brunswick-Greensville. <sup>10</sup>	Thomas H. Valentine, M. D.	Lawrenceville	Do.
Fairfax	Adrian L. Carson, Jr., M. D.	Fairfax	Do.
Henrico	J. C. Neale, Jr., M. D.	Richmond	Do.
Isle of Wight-Nassau-	Challis H. Dawson, M. D.	Suffolk	Do.
semond. <sup>10</sup>	Josiah Leake, M. D.	Portsmouth	Do.
Norfolk-Princess Anne. <sup>10</sup>	W. A. Brumfield, M. D.	Farmville	Do.
Nottoway-Prince Edward. <sup>10</sup>	William H. Walcott, M. D.	Chatham	Do.
Pittsylvania	Peter P. Causey, M. D.	Courtland	Do.
Southampton	E. C. Harper, M. D.	Abingdon	Deputy director of rural health.
Southwest District			
Bland.			
Buchanan.			
Carroll.			
Dickenson.			
Grayson.			
Lee.			
Russell.			
Scott.			
Smyth.			
Tazewell.			
Washington.			
Wise.			
Wythe.			
Valley District	R. D. Hollowell, M. D.	Harrisonburg	Health officer.
Greene.			
Madison.			
Page.			
Rappahannock.			
Rockingham.			
Shenandoah.			
Warren.			
Washington:			
Chelan	C. R. Fargher, M. D.	Wenatchee	County health officer.
Clark	R. W. Armstrong, M. D.	Vancouver	Do.
King	C. L. Dixon, M. D.	Seattle	Do.
Snohomish	H. L. Eldridge, M. D.	Everett	Do.
Spokane	W. O. Wisner, M. D.	Spokane	Do.
Walla Walla	J. E. Vanderpool, M. D.	Walla Walla	Do.
Whitman	R. J. Skalfe, M. D.	Colfax	Do.
Yakima	Lloyd Moffit, M. D.	Yakima	Do.
West Virginia:			
Berkeley	Claude A. Thomas, M. D.	Martinsburg	Do.
Boone	R. L. Hunter, M. D.	Madison	Do.
Fayette	H. H. Puckett, M. D.	Fayetteville	Do.
Hancock	T. E. Cato, M. D.	New Cumberland	Do.
Harrison	A. J. Kemper, M. D.	Clarksburg	Do.
Kanawha	John Thames, M. D.	Charleston	Do.
Logan	T. J. Farley, M. D.	Logan	Do.
Marshall	W. G. C. Hill, M. D.	Moundsville	Do.
Monongalia	R. C. Farrier, M. D.	Morgantown	Do.
Ohio	R. M. Peddicord, M. D.	Wheeling	Do.
Preston	E. R. Davies, M. D.	Kingwood	Do.
Raleigh	W. W. Hume, M. D.	Beckley	Do.
Wood	A. D. Knott, D. P. H.	Parkersburg	Do.

<sup>10</sup> Bicounty project.

September 20, 1935

## DEATHS DURING WEEK ENDED AUG. 31, 1935

[From the Weekly Health Index, issued by the Bureau of the Census, Department of Commerce]

	Week ended Aug. 31, 1935	Correspond- ing week, 1934
<b>Data from 86 large cities of the United States:</b>		
Total deaths.....	6,681	6,667
Deaths per 1,000 population, annual basis.....	9.3	9.3
Deaths under 1 year of age.....	520	541
Death under 1 year of age per 1,000 estimated live births.....	48	51
Deaths per 1,000 population, annual basis, first 35 weeks of year.....	11.6	11.6
<b>Data from industrial insurance companies:</b>		
Policies in force.....	67,554,445	67,373,367
Number of death claims.....	10,659	11,327
Death claims per 1,000 policies in force, annual rate.....	8.2	8.8
Death claims per 1,000 policies, first 35 weeks of year, annual rate.....	10.0	10.2

# PREVALENCE OF DISEASE

*No health department, State or local, can effectively prevent or control disease without knowledge of when, where, and under what conditions cases are occurring*

## UNITED STATES

### CURRENT WEEKLY STATE REPORTS

These reports are preliminary, and the figures are subject to change when later returns are received by the State health officers

#### Reports for Weeks Ended Sept. 7, 1935, and Sept. 8, 1934

*Cases of certain communicable diseases reported by telegraph by State health officers for weeks ended Sept. 7, 1935, and Sept. 8, 1934*

Division and State	Diphtheria		Influenza		Measles		Meningococcus meningitis	
	Week ended Sept. 7 1935	Week ended Sept. 8 1934	Week ended Sept. 7 1935	Week ended Sept. 8 1934	Week ended Sept. 7 1935	Week ended Sept. 8 1934	Week ended Sept. 7 1935	Week ended Sept. 8 1934
New England States:								
Maine	1	4				8	5	0
New Hampshire							0	0
Vermont						4	1	0
Massachusetts	2	9				13	15	1
Rhode Island	1	4				2	6	0
Connecticut	3	1				1	8	1
Middle Atlantic States:								
New York	24	29	13	14	81	44	5	4
New Jersey	11	2	4	7	12	9	2	0
Pennsylvania	21	23			20	70	3	0
East North Central States:								
Ohio	15	29	1	6	19	38	7	0
Indiana	32	19	39	7	3	10	2	2
Illinois	32	25	6	8	16	27	6	5
Michigan	7	4			21	8	2	0
Wisconsin	1	1	11	15	36	65	1	0
West North Central States:								
Minnesota <sup>2</sup>	7	5		1	4	15	2	0
Iowa	12	5	1		4	3	0	0
Missouri	23	21	13	37	4	6	2	2
North Dakota			3		5	6	0	1
South Dakota	1	4				13	1	0
Nebraska	2	9				1	2	0
Kansas <sup>2</sup>	5	5	2	5	5	0	0	1
South Atlantic States:								
Delaware	2				1	2	0	0
Maryland <sup>3</sup>	1	4	1	77	4	1	4	1
District of Columbia	13	3				1	3	0
Virginia <sup>4</sup>	20	31			4	19	2	1
West Virginia	20	24	30	25	6	2	1	0
North Carolina <sup>4</sup>	28	68	4		6	27	4	1
South Carolina	20	3	94	127	1	13	0	0
Georgia <sup>4</sup>	26	22				0	0	0
Florida <sup>4</sup>	7	17	2	1	2	8	0	1
East South Central States:								
Kentucky	63	51	3		3	35	0	0
Tennessee <sup>4</sup>	22	25	20	29	1	11	3	1
Alabama <sup>4</sup>	31	61	27	1	7	16	1	0
Mississippi <sup>4</sup>	26	15					1	1

See footnotes at end of table.

*Cases of certain communicable diseases reported by telegraph by State health officers  
for weeks ended Sept. 7, 1935, and Sept. 8, 1934—Continued*

Division and State	Diphtheria		Influenza		Measles		Meningococcus meningitis *	
	Week ended Sept. 7, 1935	Week ended Sept. 8, 1934	Week ended Sept. 7, 1935	Week ended Sept. 8, 1934	Week ended Sept. 7, 1935	Week ended Sept. 8, 1934	Week ended Sept. 7, 1935	Week ended Sept. 8, 1934
<b>West South Central States:</b>								
Arkansas	35	9	7	3	4	—	2	1
Louisiana	23	2	17	2	7	—	0	0
Oklahoma *	19	5	12	18	1	—	1	0
Texas *	76	38	16	36	1	27	0	0
<b>Mountain States:</b>								
Montana	1	2	—	6	3	12	0	0
Idaho *	—	2	—	—	—	1	0	0
Wyoming	—	1	—	—	3	—	0	0
Colorado	7	4	—	—	4	3	1	0
New Mexico	—	1	—	—	1	1	0	0
Arizona *	2	2	6	3	1	4	0	0
Utah *	—	—	—	—	1	2	0	0
<b>Pacific States:</b>								
Washington	—	—	1	—	13	18	1	0
Oregon	—	—	—	5	32	3	0	0
California	28	14	15	12	73	22	3	1
<b>Total</b>	<b>679</b>	<b>607</b>	<b>346</b>	<b>435</b>	<b>438</b>	<b>587</b>	<b>62</b>	<b>24</b>
<b>First 36 weeks of year</b>	<b>19,777</b>	<b>21,995</b>	<b>105,025</b>	<b>50,511</b>	<b>697,342</b>	<b>670,288</b>	<b>4,354</b>	<b>1,694</b>

Division and State	Poliomyelitis		Scarlet fever		Smallpox		Typhoid fever	
	Week ended Sept. 7, 1935	Week ended Sept. 8, 1934	Week ended Sept. 7, 1935	Week ended Sept. 8, 1934	Week ended Sept. 7, 1935	Week ended Sept. 8, 1934	Week ended Sept. 7, 1935	Week ended Sept. 8, 1934
<b>New England States:</b>								
Maine	17	0	11	10	0	0	3	0
New Hampshire	3	1	3	2	0	0	0	0
Vermont	4	1	1	8	0	0	4	1
Massachusetts	160	1	32	45	0	0	7	5
Rhode Island	31	0	3	2	0	0	0	0
Connecticut	38	2	8	8	0	0	1	1
<b>Middle Atlantic States:</b>								
New York	414	10	108	125	1	0	35	28
New Jersey	72	5	25	19	0	0	15	9
Pennsylvania	9	3	52	82	0	0	16	25
<b>East North Central States:</b>								
Ohio	2	15	111	138	0	1	54	68
Indiana	3	14	43	40	0	1	18	37
Illinois	22	9	130	133	0	1	47	54
Michigan	76	14	31	50	0	0	16	67
Wisconsin	4	6	59	41	0	1	6	9
<b>West North Central States:</b>								
Minnesota *	5	4	31	8	0	0	5	5
Iowa	5	4	18	19	0	0	7	12
Missouri	3	0	54	32	0	0	20	43
North Dakota	0	1	2	5	1	0	1	3
South Dakota	0	3	10	1	0	0	1	19
Nebraska	0	0	9	14	6	3	1	4
Kansas *	1	5	17	18	1	0	17	13
<b>South Atlantic States:</b>								
Delaware	0	0	4	1	0	0	1	2
Maryland *	11	0	18	22	0	0	16	9
District of Columbia	5	0	10	8	0	0	4	2
Virginia *	16	6	19	55	0	0	41	41
West Virginia	3	5	45	29	0	0	16	43
North Carolina *	11	1	36	46	1	0	16	15
South Carolina	1	0	7	5	0	0	24	15
Georgia *	0	0	9	15	0	0	16	31
Florida *	0	0	4	2	0	0	1	0

See footnotes at end of table.

*Cases of certain communicable diseases reported by telegraph by State health officers for weeks ended Sept. 7, 1935, and Sept. 8, 1934—Continued*

Division and State	Poliomyelitis		Scarlet fever		Smallpox		Typhoid fever	
	Week ended Sept. 7, 1935	Week ended Sept. 8, 1934	Week ended Sept. 7, 1935	Week ended Sept. 8, 1934	Week ended Sept. 7, 1935	Week ended Sept. 8, 1934	Week ended Sept. 7, 1935	Week ended Sept. 8, 1934
<b>East South Central States:</b>								
Kentucky	42	18	57	42	0	2	96	77
Tennessee <sup>1</sup>	3	4	27	37	1	0	50	36
Alabama <sup>2</sup>	2	1	4	19	0	0	15	19
Mississippi <sup>3</sup>	0	1	9	9	0	0	13	10
<b>West South Central States:</b>								
Arkansas	0	1	8	5	0	0	7	16
Louisiana	2	0	3	3	0	0	25	18
Oklahoma <sup>4</sup>	1	0	13	4	1	0	21	23
Texas <sup>5</sup>	3	2	21	39	1	0	70	37
<b>Mountain States:</b>								
Montana	1	36	9	1	2	0	8	8
Idaho <sup>6</sup>	0	6	4	1	1	0	4	0
Wyoming	0	1	6	1	0	0	2	0
Colorado	1	1	21	17	0	2	5	9
New Mexico	0	0	5	—	0	0	2	7
Arizona <sup>7</sup>	1	15	2	2	0	0	5	5
Utah <sup>8</sup>	1	2	14	2	0	0	0	0
<b>Pacific States:</b>								
Washington	1	42	8	19	18	2	1	5
Oregon	0	5	14	17	3	0	5	5
California	24	49	75	64	2	0	15	7
<b>Total</b>	<b>1,007</b>	<b>294</b>	<b>1,210</b>	<b>1,265</b>	<b>39</b>	<b>13</b>	<b>753</b>	<b>842</b>
<b>First 36 weeks of year</b>	<b>6,424</b>	<b>4,982</b>	<b>183,421</b>	<b>151,177</b>	<b>5,407</b>	<b>3,796</b>	<b>11,472</b>	<b>13,650</b>

<sup>1</sup> New York City only.

<sup>2</sup> Epidemic encephalitis, week ended Sept. 7, 1935, 6 cases, as follows: Minnesota, 2; Kansas, 2; Idaho, 1; Arizona, 1.

<sup>3</sup> Week ended earlier than Saturday.

<sup>4</sup> Rocky Mountain spotted fever, week ended Sept. 7, 1935, 2 cases, as follows: North Carolina, 1; Tennessee, 1.

<sup>5</sup> Typhus fever, week ended Sept. 7, 1934, 36 cases, as follows: Virginia, 1; Georgia, 21; Florida, 2; Alabama, 7; Texas, 5.

<sup>6</sup> Exclusive of Oklahoma City and Tulsa.

### SUMMARY OF MONTHLY REPORTS FROM STATES

The following summary of cases reported monthly by States is published weekly and covers only those States from which reports are received during the current week.

State	Menin-gococ-cus menin-gitis	Diph-theria	Influ-enza	Malaria	Measles	Pel-lagra	Polio-myelitis	Scarlet fever	Small-pox	Ty-phioid fever
<b>May 1935</b>										
Hawaii Territory	4	4	5	—	5	—	—	3	0	2
Wyoming	0	3	—	—	245	—	0	83	28	2
<b>July 1935</b>										
California	16	123	96	18	1,615	22	142	421	17	38
Montana	2	16	15	1	130	—	0	11	17	10
New York	48	91	—	11	4,599	—	148	872	0	51
South Carolina	—	204	166	1,125	12	165	9	9	—	110
<b>August 1935</b>										
Delaware	2	2	—	—	10	—	3	8	0	13

May 1935		July 1935		July 1935	
Chicken pox:	Cases	Food poisoning:	Cases	Septic sore throat:	Cases
Hawaii Territory	157	California	35	California	10
Wyoming	14	German measles:	394	Montana	18
Leprosy:		California	19	New York	26
Hawaii Territory	5	Montana	1,391	Tetanus:	
Mumps:		New York		California	5
Hawaii Territory	67	Granuloma, coccidioidal:		Montana	1
Wyoming	3	California	4	New York	5
Rocky Mountain spotted fever:		Hookworm disease:	223	Trachoma:	
Wyoming	17	South Carolina		California	7
Septic sore throat:		Impetigo contagiosa:		Montana	1
Wyoming	2	Montana	1	Trichinosis:	
Tularemia:		Jaundice (epidemic):		California	2
Wyoming	2	California	2	New York	14
Whooping cough:		Mumps:		Tularemia:	
Hawaii Territory	70	California	419	California	1
Wyoming	36	Montana	36	Montana	7
July 1935		South Carolina	78	South Carolina	1
Actinomycosis:		Ophthalmia neonatorum:		Typhus fever:	
California	1	California	1	South Carolina	4
Anthrax:		New York	7	Undulant fever:	
California	1	South Carolina	7	California	19
Chicken pox:		Paratyphoid fever:		Montana	1
California	989	California	6	New York	24
Montana	49	New York	27	Vincent's infection:	
New York	1,037	South Carolina	3	Montana	3
South Carolina	20	Psittacosis:		New York	59
Dengue:		California	3	Whooping cough:	
South Carolina	3	Rabies in animals:		California	642
Diarrhea:		California	68	Montana	109
South Carolina	528	New York	3	New York	1,802
Dysentery:		South Carolina	50	South Carolina	174
California (amoebic)	14	Rabies in man:		August 1935	
California (bacillary)	18	California	1	Delaware:	
New York (amoebic)	3	Relapsing fever:		Chicken pox	3
New York (bacillary)	155	California	1	German measles	1
Epidemic encephalitis:		Rocky Mountain spotted fever:		Mumps	2
California	8	California	2	Whooping cough	5
New York	10	Montana	21		
South Carolina	1	New York	1		

## WEEKLY REPORTS FROM CITIES

## City reports for week ended Aug. 31, 1935

This table summarizes the reports received weekly from a selected list of 140 cities for the purpose of showing a cross section of the current urban incidence of the communicable diseases listed in the table. Weekly reports are received from about 700 cities, from which the data are tabulated and filed for reference.

State and city	Diphtheria cases	Influenza		Measles cases	Pneumonia deaths	Scarlet fever cases	Small-pox cases	Tuberculosis deaths	Typhoid fever cases	Whooping cough cases	Deaths, all causes
		Cases	Deaths								
Maine:											
Portland	0	0	0	1	2	0	0	0	0	0	10
New Hampshire:											
Concord											7
Nashua	0			0		0	0		0	0	
Vermont:											
Barre											
Burlington	0		0	0	0	0	0	0	3	0	5
Rutland	0		0	0	0	0	0	0	0	2	4
Massachusetts:											
Boston	1		2	10	9	13	0	7	2	16	173
Fall River	0		1	0	1	2	0	1	0	5	19
Springfield	0		0	0	0	0	0	1	1	5	26
Worcester	0		0	1	3	5	0	0	0	0	46
Rhode Island:											
Pawtucket	0		0	0	0	0	0	0	0	0	16
Providence	0	1	0	5	0	0	0	1	0	4	60
Connecticut:											
Bridgeport	0		0	2	0	3	0	2	0	5	21
Hartford	0		0	0	3	0	0	1	1	6	39
New Haven	0		0	1	0	0	0	1	0	9	39
New York:											
Buffalo	0		0	4	6	12	0	10	0	6	123
New York	14	6	2	48	60	20	0	68	19	137	1,154
Rochester	1		0	0	2	1	0	0	0	5	65
Syracuse	0		0	13	0	3	0	1	1	23	33

<sup>1</sup> Exclusive of New York City.

## City reports for week ended Aug. 31, 1935—Continued

State and city	Diph- theria cases	Influenza		Men- sles cases	Pneu- monia deaths	Scar- let fever cases	Small- pox cases	Tuber- culosis deaths	Ty- phoid fever cases	Whoop- ing cough cases	Deaths, all causes
		Cases	Deaths								
<b>New Jersey:</b>											
Camden	0	0	0	0	0	0	0	1	1	0	18
Newark	0	1	0	3	1	3	0	2	0	32	78
Trenton	0	0	0	0	0	0	0	2	0	2	20
<b>Pennsylvania:</b>											
Philadelphia	2	3	0	5	15	14	0	16	9	52	322
Pittsburgh	2	0	0	2	11	11	0	5	1	22	120
Reading	0	0	0	0	0	1	0	0	0	1	21
Scranton	0	0	0	0	0	0	0	0	0	4	—
<b>Ohio:</b>											
Cincinnati											
Cleveland	1	12	0	5	12	13	0	13	3	37	167
Columbus	0	1	1	1	2	3	0	3	1	2	66
Toledo	1	1	1	1	2	3	0	3	2	9	53
<b>Indiana:</b>											
Anderson	0	0	0	0	0	0	0	1	0	2	11
Fort Wayne	0	0	0	0	1	3	0	1	1	0	10
Indianapolis	2	0	1	0	11	2	0	3	0	6	81
South Bend	0	0	0	1	0	0	0	2	0	0	22
Terre Haute	0	0	0	0	0	0	0	0	2	0	21
<b>Illinois:</b>											
Alton	8	0	0	1	1	0	0	0	0	0	10
Chicago	7	2	9	19	27	0	0	35	3	110	559
Elgin	0	0	0	1	0	0	0	0	0	4	12
Moline	0	0	0	0	0	0	0	0	0	0	7
Springfield	0	0	0	1	0	0	0	0	0	9	17
<b>Michigan:</b>											
Detroit	0	6	0	3	6	12	1	13	2	103	217
Flint	0	0	0	0	1	3	0	0	1	10	29
Grand Rapids	0	0	0	2	0	5	0	0	0	19	20
<b>Wisconsin:</b>											
Kenosha	0	0	0	0	1	0	0	0	0	1	4
Milwaukee	2	0	10	2	2	0	0	1	0	56	82
Racine	0	0	0	1	7	2	0	0	0	17	23
Superior	0	0	0	0	4	0	0	0	0	0	7
<b>Minnesota:</b>											
Duluth	0	0	0	1	0	0	0	1	3	0	17
Minneapolis	1	0	1	3	7	0	0	0	2	4	65
St. Paul	0	0	0	4	3	0	0	1	1	9	39
<b>Iowa:</b>											
Cedar Rapids	0	0	0	0	2	0	0	0	0	1	—
Des Moines	1	0	1	1	1	0	0	0	0	0	—
Sioux City	1	0	3	0	4	0	0	0	0	3	—
Waterloo	1	0	0	0	1	0	0	0	0	0	—
<b>Missouri:</b>											
Kansas City	2	0	0	4	4	0	0	4	1	1	71
St. Joseph	1	0	0	2	1	0	0	1	0	1	23
St. Louis	6	0	2	5	3	0	0	7	2	7	169
<b>North Dakota:</b>											
Fargo	0	0	0	0	0	0	0	0	0	2	4
Grand Forks	0	0	1	—	0	0	0	0	0	0	—
Minot	0	0	0	0	0	0	0	0	1	0	6
<b>South Dakota:</b>											
Aberdeen	0	0	0	0	0	0	0	0	0	0	—
<b>Nebraska:</b>											
Omaha	1	0	0	0	1	0	0	1	0	0	45
<b>Kansas:</b>											
Lawrence	0	0	1	0	0	0	0	0	0	0	4
Topeka	0	0	0	0	0	0	0	0	0	4	12
Wichita	0	0	0	0	0	0	0	1	0	0	19
<b>Delaware:</b>											
Wilmington	0	0	0	2	2	0	0	0	0	3	19
<b>Maryland:</b>											
Baltimore	0	0	0	8	4	0	0	10	1	22	140
Cumberland	0	0	0	1	0	0	0	0	0	0	11
Frederick	0	0	0	0	0	0	0	0	0	0	0
<b>District of Columbia:</b>											
Washington	8	0	0	6	4	0	8	5	5	5	124
<b>Virginia:</b>											
Lynchburg	2	0	0	0	1	0	0	0	2	12	11
Norfolk	0	0	0	1	0	0	0	2	4	0	29
Richmond	1	0	0	1	5	0	0	4	2	0	56
Roanoke	0	0	0	0	3	0	3	0	0	0	10

## City reports for week ended Aug. 31, 1935—Continued

State and city	Diph- theria cases	Influenza		Meas- sles cases	Pneu- monia deaths	Scar- let fever cases	Small- pox cases	Tuber- culosis deaths	Ty- phoid fever cases	Whoop- ing cough cases	Deaths all causes
		Cases	Deaths								
West Virginia:											
Charleston	12	0	0		2	1	0	0	0	0	4
Huntington	0	0	0			5	0		0	0	
Wheeling	0	0	0		0	1	0	1	1	1	10
North Carolina:											
Raleigh											
Wilmington	0	0	0		1	0	0	0	0	0	9
Winston-Salem	0	0	0		2	0	0	0	0	0	16
South Carolina:											
Charleston	0	0	0		0	0	0	1	0	0	11
Columbia	0	0	0		2	0	0	0	0	0	31
Florence	0	0	0		0	0	0	0	1	0	14
Greenville	0	0	0		0	0	0	1	0	0	15
Georgia:											
Atlanta	6	1	0		2	1	0	2	1	4	67
Brunswick	0	0	0		1	0	0	0	0	2	3
Savannah	4	0	0		1	0	0	0	1	0	17
Florida:											
Miami	8	0	1		1	1	0	1	0	0	23
Tampa	2	1	1		0	2	0	0	0	0	19
Kentucky:											
Ashland	1	0	0			0	0		1	0	
Covington	0	0	1		0	1	0	0	0	0	
Lexington	1	0	0		2	1	0	2	1	0	19
Louisville	2	0	1		0	7	0	9	2	1	82
Tennessee:											
Knoxville	3	0	1		0	0	0	2	1	0	22
Memphis	1	0	1		0	2	0	6	0	0	42
Nashville	2	0	0		2	0	0	0	1	5	43
Alabama:											
Birmingham	1	1	0		0	2	0	4	1	1	56
Mobile	2	1	0		1	0	0	3	0	0	26
Montgomery	1	0	0		0	1	0	0	0	0	
Arkansas:											
Fort Smith											
Little Rock	0	1	0		1	1	0	2	1	0	
Louisiana:											
New Orleans	9	1	0		8	2	0	8	1		135
Shreveport	1	0	0		2	2	0	3	0	0	37
Texas:											
Dallas	6	0	1		2	3	0	2	0	1	60
Fort Worth	1	0	0		1	4	0	0	0	1	23
Galveston	0	0	0		1	0	0	0	1	0	11
Houston	5	0	0		4	2	0	5	4	0	76
San Antonio	2	0	0		1	0	0	4	1	0	48
Montana:											
Billings	0	0	0		1	0	0	0	0	2	10
Great Falls	0	0	0		2	1	0	0	0	0	10
Helena	0	0	0		0	1	0	0	0	3	1
Missoula	0	0	0		0	0	0	0	0	0	6
Idaho:											
Boise	0	0	1		2	0	0	0	0	1	9
Colorado:											
Colorado											
Spring	0	0	0		1	2	0	1	0	2	13
Denver	9	0	0		3	5	0	2	1	2	63
Pueblo	0	0	0		0	1	0	0	0	2	5
New Mexico:											
Albuquerque	1	0	0		0	0	0	1	0	4	9
Utah:											
Salt Lake City	0	0	0		3	4	0	2	2	19	46
Nevada:											
Reno	0	0	0		0	0	0	0	0	0	5
Washington:											
Seattle	0	0	3		4	5	0	2	2	13	75
Spokane	0	0	2		1	2	0	1	0	1	22
Tacoma	0	0	0		2	1	0	0	0	0	22
Oregon:											
Portland	0	0	9		2	7	0	0	0	0	63
Salem	0	0	1		0	0	0	0	0	0	
California:											
Los Angeles	10	1	11		8	7	0	15	0	3	252
Sacramento	1	0	1		2	3	0	2	1	2	26
San Francisco	0	1	24		9	5	0	12	0	15	155

## City reports for week ended Aug. 31, 1935—Continued

State and city	Meningococcus meningitis		Polio-myelitis cases	State and city	Meningococcus meningitis		Polio-myelitis cases
	Cases	Deaths			Cases	Deaths	
Maine:							
Portland	0	0	2				
Massachusetts:							
Boston	1	0	75	Iowa:			
Fall River	0	0	25	Des Moines	0	0	1
Springfield	0	0	1	Missouri:			
Worcester	0	0	2	St. Louis	0	0	1
Rhode Island:				North Dakota:			
Pawtucket	0	0	4	Minot	1	1	0
Providence	0	0	24	South Dakota:			
Connecticut:				Aberdeen	1	0	0
Bridgeport	0	0	5	Nebraska:			
Hartford	0	0	3	Omaha	3	2	0
New Haven	0	0	3	Kansas:			
New York:				Wichita	1	1	0
New York	13	2	366	Maryland:			
Rochester	0	1	0	Baltimore	3	5	4
Syracuse	0	0	3	District of Columbia:			
New Jersey:				Washington	2	1	5
Newark	0	0	2	Virginia:			
Trenton	1	0	0	Lynchburg	0	0	4
Pennsylvania:				Norfolk	0	0	1
Philadelphia	1	1	10	Richmond	0	0	2
Ohio:				Kentucky:			
Cleveland	0	0	5	Louisville	0	0	19
Indiana:				Tennessee:			
Indianapolis	0	0	2	Memphis	0	1	0
Illinois:				Alabama:			
Chicago	4	3	6	Birmingham	0	0	1
Elgin	0	0	1	Montgomery	0	0	1
Michigan:				Louisiana:			
Detroit	0	0	20	New Orleans	1	0	0
Flint	0	0	10	Texas:			
Grand Rapids	0	0	5	Galveston	0	1	0
Wisconsin:				Oregon:			
Racine	0	0	1	Portland	1	0	0
Minnesota:				California:			
Minneapolis	0	0	1	Los Angeles	1	0	5
St. Paul	1	0	1	Sacramento	0	0	2

*Epidemic encephalitis.*—Cases: Pittsburgh, 1; Toledo, 1; Chicago, 1; Detroit, 1; St. Louis, 1; Birmingham, 1.

*Pellagra.*—Cases: Boston, 1; Columbia, 1; Louisville, 3; Memphis, 1; Birmingham, 2; Los Angeles, 1; Sacramento, 1.

*Typhus fever.*—Cases: New York, 1; Charleston, S. C., 1; Atlanta, 8; Savannah, 2; Mobile, 4; Fort Worth, 3.

## FOREIGN AND INSULAR

### CUBA

*Habana—Communicable diseases—4 weeks ended August 31, 1935.*—During the 4 weeks ended August 31, 1935, certain communicable diseases were reported in Habana, Cuba, as follows:

Disease	Cases	Deaths	Disease	Cases	Deaths
Diphtheria	1		Scarlet fever	2	
Malaria	39	2	Tuberculosis	29	12
Poliomyelitis	1		Typhoid fever	96	4

<sup>1</sup> Includes imported cases.

*Provinces—Notifiable diseases—4 weeks ended August 24, 1935.*—During the 4 weeks ended August 24, 1935, cases of certain notifiable diseases were reported in the Provinces of Cuba as follows:

Disease	Pinar del Rio	Habana	Matanzas	Santa Clara	Ciego de Avila	Oriente	Total
Cancer	1			6	6	3	16
Cerebrospinal meningitis				1			1
Chicken pox				2			2
Diphtheria		3		2	1	2	8
Hookworm disease			1	3			4
Leprosy						9	9
Malaria	520	48	82	426	427	450	1,964
Measles		2	3	4			9
Poliomyelitis				1	3		8
Tuberculosis	2	9	18	40	23	20	121
Typhoid fever	9	90	25	77	87	27	315

### SCOTLAND

*Typhoid fever.*—According to information dated August 16, 1935, 66 cases of typhoid fever with 3 deaths had been reported in Scotland since August 5, 1935. It appears that all the patients were members of a pilgrimage to Lourdes, France, which left Glasgow, Scotland, on July 12, 1935, on the S. S. *Athenia*. A later report also states that 40 cases of typhoid fever had been reported in Glasgow, Scotland, up to August 20, 1935.

## SWITZERLAND

*Infectious diseases—1934.*—During the year 1934, cases of certain infectious diseases were reported in Switzerland as follows:

Disease	Cases	Disease	Cases
Cerebrospinal meningitis	43	Paratyphoid fever	28
Chicken pox	1,635	Poliomyelitis	80
Diarrhea	1	Scarlet fever	3,473
Diphtheria and croup	1,775	Shingles	112
German measles	108	Trachoma	10
Influenza	771	Tuberculosis	2,988
Lethargic encephalitis	4	Typhoid fever	98
Measles	12,798	Whooping cough	2,120
Mumps	627		

## CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER

NOTE.—A table giving current information of the world prevalence of quarantinable diseases appeared in the PUBLIC HEALTH REPORTS for August 30, 1935, pages 1194-1210. A similar cumulative table will appear in the PUBLIC HEALTH REPORTS to be issued September 27, 1935, and thereafter, at least for the time being, in the issue published on the last Friday of each month.

## Cholera

*India.*—During the week ended August 31, 1935, 1 case of cholera with 1 death was reported in Cochin, and 3 cases of cholera were reported at Negapatam, India.

*Siam—Bangkok.*—During the week ended August 31, 1935, 1 case of cholera with 1 death was reported at Bangkok, Siam.

## Plague

*Brazil—Pernambuco State.*—According to information dated September 10, 1935, 204 cases of plague with 72 deaths were reported up to August 24, 1935, in the interior of Pernambuco State, Brazil.

*China—Manchuria.*—A report dated August 29, 1935, states that up to August 27, 1935, 78 deaths from bubonic plague were reported in the Fuyu, Shuangshan, and Changling districts of central Manchuria, China, the first cases of which occurred along the Taoan Nungan Railway.

## Typhus Fever

*Straits Settlements—Singapore.*—During the week ended August 3, 1935, one case of typhus fever was reported at Singapore, Straits Settlements.

## Yellow Fever

*Brazil—Minas Geraes State—Theophilo Ottoni.*—During the week ended August 31, 1935, eight cases of yellow fever were reported at Theophilo Ottoni, Minas Geraes State, Brazil.